



THE CHEMIST AND DRUGGIST

TELEPHONE
1852
NUMBER

ESTABLISHED IN

ENGLAND ... 1859. AUSTRALASIA ... 1885.

TELEGRAPHIC
ADDRESS
CHEMISTS LONDON.

CHIEF OFFICE,
LONDON:
42 CANNON ST.
E.C.

Registered as a Newspaper.

Branch Offices:
MELBOURNE,
SYDNEY,
and NEW YORK.

Registered as a Newspaper.

[Registered for Foreign Transmission.]

Prix de l'abonnement :—The Chemist and Druggist
une fois par semaine, et l'agenda du Chemist and
Druggist une fois par an, 12 50 francs par an,
franco.

Abonnementspreis :—The Chemist and Druggist
einmal wöchentlich, und Notizkalender des Chemist
and Druggist einmal im Jahre, 10 Mark jährlich,
frei in's Haus geliefert.

Precio de suscripcion :—The Chemist and Druggist,
una vez por semana, y el Agenda del Chemist and
Druggist una vez al año, 12 50 pesetas anuales,
franco.

No. 505. Vol. XXXV.

DECEMBER 21, 1889.

{ Subscription, 10s. Per Annum, including
Diary, Post Free the World over.
{ Single Copies, 4d. Each, Post Free.

N. B.

The DRUG LIST of the undersigned for January 1st will be thoroughly revised, and contain extended List of Quotations for COATED PILLS, FLUID EXTRACTS, &c.

The DRUGGISTS' SUNDRIES LIST for 1890 will be issued on the 16th January, considerably enlarged and amended.

SUPPLIED TO REGISTERED CHEMISTS ONLY.

EVANS, SONS & CO., LIVERPOOL.

London: EVANS, LESCHER & WEBB.

Canada: EVANS & SONS (LIMITED).

“CARNABYN”

(REGISTERED)

A NOURISHING MEAT AND MALT WINE.

Strongly recommended by the Medical Faculty in all cases of weakened constitution, and particularly useful in cases of ladies, whilst nursing, and delicate children, or in ailments where a stimulating—digestive—tonic—nutrient is indicated

Dose—A quarter to Two Ounces twice daily.

In Bottles, 2s. 6d., 5s., and 7s. 6d.

HOOVER & COMPANY,
CHEMISTS, ETC.

55 Grosvenor Street, and 26 Davies Street, W.; also at 7 Pall Mall East, London.

LABORATORY—MITCHAM, SURREY.

ALSO, AS SUPPLIED TO H.M. THE QUEEN AND THE ÉLITE OF THE ARISTOCRACY,

HOOVER'S SPARKLING SELTZER

2/6 per dozen. Six dozen Carriage free.

PURE SODA, PURE POTASH, LEMONADE, AND AROMATIC GINGER ALE.

Special Terms for Quantity.

THE EPIDEMIC OF INFLUENZA OR GRIPPE --- PHENACETIN

Experiments have recently been made in Prussia which show that PHENACETIN taken every three hours in doses of 4 grains is remarkably well adapted for treating cases of INFLUENZA or GRIPPE, which has recently become epidemical, and we highly recommend this valuable drug, which is free from the toxic properties and bad after-effects produced by Antipyrin, Antifebrin, and other like substances, to the attention of the Medical Profession.

Excellent results have also been obtained with PHENACETIN in the treatment of WHOOPING COUGH; whilst before the treatment the number of paroxysms ran up to ten—fifteen per day, they were soon reduced to three, and even disappeared completely in a few days.

MAY & BAKER,
BATTERSEA, LONDON, S.W.

[1]

OLDFIELD, PATTINSON & CO.

WHOLESALE & EXPORT DRUGGISTS,
17 TODD STREET, MANCHESTER.

Sole Proprietors and Manufacturers of the

"Silver Churn" Butter Colouring,

A purely Vegetable preparation for giving to Butter, at all seasons, a rich cowslip tint, not obtainable by other means. It is the best and cheapest preparation in the market, and does not crust or deposit like the Danish and American makes, and has the further advantage of being a Home Product. Druggists in the grazing districts will find this a very saleable line. It is sold in bottles attractively got up at

6d. 1s. 2s. 5s. size

4s. 8s. 16s. 38s. per dozen.

less usual 10 per cent. discount. Buyers of £5 worth gross value, which may be assorted to suit their requirements, are put on full wholesale terms.

For large Dairies and Druggists who prefer to bottle it under their own name, it may be had in bulk, in 1, 2, and 4 gallon bottles, and 1, 3, and 5 cwt. casks, at special prices, which will be sent on application.

THE "SILVER CHURN" ESSENCE OF RENNET.

For the preparation of Devonshire Junkets, Curds and Whey, Cheese Cakes, &c.

This is always uniform in strength, and, as the above-mentioned dietary articles are growing in favour, will command a ready sale.

6d. size, 4s. per dozen; 1s. size, 8s. per dozen; 2s. size, 16s. per dozen.

TERMS AS ABOVE.

THE "SILVER CHURN" CHEESE RENNET.

A highly concentrated preparation, introduced specially for large Dairies and Cheese Factories, one tablespoonful being sufficient to curdle Twenty-five Gallons of Milk.

Sold in $\frac{1}{2}$, 1, 2, 4 gallon bottles and 30-gallon casks, at special prices which may be had on application. The attention of Druggists in the Cheese Districts is particularly directed to this article.

FLUID EXTRACT OF HERBS (Botanic Extract)

FOR MAKING HERB BEER.

This is a very superior preparation, and is meeting with great success, there being a growing demand for an article of this description during the Spring and Summer Months.

Price in 2-gallon bottles, 1s. per lb. Price bottled, 6d. size, 4s.; 1s. size, 8s.; 2s. size, 16s. per dozen.

Attractively put up with plain labels and metal capsules.

CUCUMBER CREAM AND GLYCERINE.

1s. 2d. per lb.; 1s. in Winchester Quarts. Inseparable and delicately perfumed.

APERIENT SUMMER SALINE.

1s. 4d. per lb.; 1s. 2d. in Pottle Bottles. Pleasantly flavoured and will not cake in the bottles.

CONCENTRATED SOLUBLE ESSENCES.

Prepared specially for Cordials, Aërated Waters, &c., and will mix with Water or Syrup in any proportion without turning turbid

Essence of Capsicum ...	5s. per lb.,	4s. 6d. in Wr. Qts.	Essence of Horehound	3s. per lb.	2s. 6d. in Wr. Qts.
" English Hop	5s.	" 4s. 6d.	" Lemon	3s. 6d.	" 3s.
" Ginger	4s.	" 3s. 6d.	" Orange	3s. 6d.	" 3s.
" Ginger Ale	4s. 6d.	" 4s.			

Buyers of 12 Winchester Quarts and upwards are requested to write for a special price.

PRICE LIST WILL BE SENT ON APPLICATION WITH BUSINESS CARD.

THE INJUNCTION MADE PERPETUAL.

WARNER'S "SAFE" CURE

IN THE HIGH COURT OF JUSTICE, CHANCERY DIVISION.

H. H. WARNER & COMPANY *v.* J. WARNER.

NOTICE IS HEREBY GIVEN that on the 28th day of November, 1889, Mr. Justice Stirling granted a PERPETUAL INJUNCTION restraining the Defendant, J. Warner, of 71 Chancery Lane, London, from selling or from in any manner representing, or procuring to be represented, the Defendant's goods as the goods of the Plaintiffs, or in such a manner as will lead to the belief that they are the goods of the Plaintiffs, and his Lordship ordered the Defendant to pay the costs of the action.

TRADE MARK PROTECTION SOCIETY,

No. 1 Furnival Street, London.

Dated this 28th day of November, 1889.


The attention of Chemists, Medicine Vendors, and the Public generally is called to the above decision and judgment. All similar attempts at imitation and infringement of our rights will be summarily prosecuted. Information respecting further infringements should be sent to

H. H. WARNER & CO.

86 CLERKENWELL ROAD, E.C.

SOLE PROPRIETORS

WARNER'S "SAFE" REMEDIES.



BEECHAM'S NEW YEAR PUZZLE.

*Divide the
Paper into three
pieces, and
adjust the figures*

1

8

9

0

*to read the usual
way—*

1890

More Rhymes for Beecham's Chimes.



MID loud congratulation,
MID the festive Christmas throng,
A mighty British nation
Would wonder what was wrong,
And millions might inquire,
If a message did not reach 'em
From the universal BEECHAM,
Of St. Helens, Lancashire.

!!!



So fill up a bumper:—be merry and wise;
Enjoy the good cheer, with its puddings and pies!
But while fun and feasting the joyous pulse thrills,
Remember the virtues of famed BEECHAM'S PILLS.

Or, when you've a moment, sit down and peruse,
What, to all friends of Beecham, will read like good news.
How Advertisement grand, with her myriad-toned voice,
Has told all the earth of the Pills of your choice.

In Britain, at places of seaside resort,
From Boat-sails that skim'd o'er the waves we were taught,
And from Bathing-machines, 'mong the sands and the rocks,
We have learned of the Pills WORTH A GUINEA A BOX!

The thousands of journals that flood town and city
Have teemed with engravings, delightful or witty,
Whose object and effort were ever the same—
To publish A WONDERFUL MEDICINE'S fame.

And School-books, to help on each master and miss,
Were given by the ton!—and the notion was this:—
Graft the ROSE-BUD OF HEALTH upon fair Wisdom's root,
And the youthful idea will the easier shoot!

In France too, that nation of genius and grace,
Of late BEECHAM'S PILLS found a wide-welcomed place;
While the far East and India constantly cry—
"The Pills ACT LIKE MAGIC—increase our supply!"

To distant America, south of the line,
They oft were dispatched in this year 'eighty-nine.—
But reader, adieu;—for our space quickly fills;
Take BEECHAM'S best wishes, and take—BEECHAM'S PILLS!

POSTSCRIPT.

A word to the wise.—BEECHAM'S ANNUAL is OUT!
Of all Christmas Numbers, the BEST, without doubt.
Though a Shilling's the worth, yet a Penny's the price!
Give news agent orders, with this sound advice—
"Let there be no delay: Try and get it to-day,
For 'tis certain they'll all be snapped up in a trice!"

Trade Notice.

TO PREVENT DISAPPOINTMENT,

S. MAW, SON & THOMPSON

Beg to inform the Trade that their

ESTABLISHMENT WILL BE CLOSED

ON

Wednesday and Thursday, the 25th and 26th inst.

FOR THE

CHRISTMAS HOLIDAYS,

AND ALSO ON

Monday and Tuesday, the 30th & 31st inst.

FOR THE

PURPOSE OF STOCK-TAKING.**7 to 12 Aldersgate Street, London.**

December 1, 1889.

**THE LIVERPOOL
SCHOOL OF PHARMACY**

Principal—Mr. J. S. WARD, Ph. Ch., F.C.S., &c.

REMOVAL TO NEW PREMISES.

Mr. WARD has great pleasure in notifying that he has secured large, airy, and well-lighted premises in the very centre of the city, viz., at the corner of Newington and of Renshaw Streets.

Being close to all the Railway Stations and to the Landing Stage, the School will be most conveniently situated for those who come in daily from the surrounding towns, and the size of the premises will enable the Principal to meet that increasing demand for Laboratory and Class room accommodation which of late he has been unable to do satisfactorily.

The next course of Full-time and Part-time Classes commences on Monday, January 6, in the New Premises.

Syllabus, Pass-lists, Testimonials, &c., sent free on application to the Principal, at 36 Oxford Street, Liverpool.

*Third Edition (Illustrated), price 6s. 6d.***MUTER'S SHORT MANUAL OF
ANALYTICAL CHEMISTRY.**

"At once the cheapest and most complete laboratory guide for pharmaceutical students, containing, within 200 pages, everything they require to know, from the simplest testing to the most elaborate quantitative work."

London: SIMPKIN, MARSHALL & CO.,
Stationers' Hall Court, E.C.

**THE LONDON HOMŒOPATHIC HOSPITAL
AND MEDICAL SCHOOL,
GREAT ORMOND STREET.**

A NEW WARD, unoccupied for want of funds, is much needed for Mal Patients, and will be opened so soon as sufficient funds to support it are received. The Hospital now contains eighty beds. Trained Nurses are sent out at moderate fees for Medical, Surgical, or Accouchement cases, the latter specially Certified.

A. CROSS, Secretary.

"CONCILIO ET LABORE."**THE MANCHESTER COLLEGE
OF
PHARMACY,****225 & 227a OXFORD STREET, MANCHESTER.****Established 1877.****Manchester 1882.**

Director—MR. W. SPENCER TURNER, Pharm. Chem.

Deputy—MR. GEO. CLAYTON, Pharm. Chem.

At the Examinations held in London and Edinburgh in October, **SEVENTEEN** students from this School entered, and the under-named **ELEVEN** passed, eight at their first attempt, and more than one complimented.

MAJOR.

Mr. J. W. BYGOTT.

MINOR.

Mr. J. A. GELLING.
" E. WHEELDON.
" W. B. LORD.
" A. E. HOUFTON.
" J. TAYLOR.

Mr. J. TAYLOR.
" H. B. FALLING.
" J. H. ANDREW.
" R. SMITH.
" G. R. J. WELCH.

TWELVE M.C.P. students passed last October, and **ELEVEN** the October before. During the year ending at the July Examination, **FIFTY** Minors and **SIX** Majors passed from this school.

Such numbers as these are an overwhelming proof of the efficiency of Mr. Turner's "system," which combines all the advantages of Lectures, Classes, and Private Tuition.

The next Session will begin on January 6.

THE CHEMIST AND DRUGGIST POST CARD COMPETITION.

READERS WILL PLEASE REFER to our Advertisement in the issue of the 14th instant, page 57 (bottom folio), containing the telegram addressed to us by a correspondent, in which he refers to our Useful Advertisement. Turn also to our Price List in Diary for 1890, pages 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, and give your vote for this as the **MOST USEFUL ANNOUNCEMENT.**

BREFFITS', LIMITED,
CHEMISTS AND DRUGGISTS' BOTTLES AND GLASSWARE,
83 UPPER THAMES STREET, E.C.

AWARDED
EIGHT

NEO-CYCLOSTYLE

PRIZE
MEDALS.

(GESTETNER'S PATENTS.)

Is the simplest and most reliable apparatus for Printing Copies of Writings, Drawings, &c. 2,000 Copies can be taken from one original, in PERMANENT BLACK INK. No gelatine, aniline ink, washing, sticky copies, and no file or laborious writing.

THE NEO-CYCLOSTYLE PEN (IMPROVED PATENT) WRITES AS EASY AS AN ORDINARY PEN.
Invaluable to Chemists for Printing Counter Bills, &c. Prices from 25s. to 42s. complete.

Mr. A. W. SMITH, Chemist, Pershore, wrote, August 23, 1889:—"I have found your 'Cyclostyle' invaluable. It has saved me many hours' labour, and not a little expense."

Apply for Specimens of Work and Descriptive List to

THE CYCLOSTYLE CO., 79a Gracechurch Street, LONDON, E.C.

PRIZE MEDAL, PARIS EXHIBITION, 1889.

ZUCCATO'S PATENT
TRYPOGRAPH

**PRINT YOUR OWN
NOTICES,**
Circulars, Price Lists, &c.

NEW MODEL 1888.

SIMPLE, CLEANLY, RELIABLE, CHEAP.

PAYS FOR ITSELF AFTER A FEW TIMES USING.

5,000 Copies can be produced from one writing. Is invaluable to Chemists and Druggists for the rapid production of Price Lists, Circulars, &c., &c.
Full particulars, with specimens of work, Testimonials, &c., on application to the Manufacturers and Patentees—

ZUCCATO & WOLFF, 12 Charterhouse Street, London, E.C.

EXCHANGE COLUMN.

NOTICE.

Advertisements for insertion in the Exchange Column of next week must be received at the Office, 42 Cannon Street, London, E.C., not later than Noon on Tuesday, December 24, 1889.

TERMS

Advertisements in this department must be paid for in advance. From this rule no deviation can be made. Insertions are charged at the rate of 1d. per word, provided the advertiser attaches his name and address, for each word of which he must also pay at the same rate; or if he pays 1d. per word, his name and address will be registered and a figure attached to his advertisement. All correspondence referring to that figure must be addressed to "The Publisher of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.," and the figure must be distinctly endorsed upon the envelope. Letters will then be forwarded to their proper destination. A price is counted as one word, as e.g., £1 10s. 6d.

DEPOSIT OF MONEY.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us, accompanied by a commission of 6d. if the amount is £3 or under; and 1s. if over that sum. We acknowledge receipt of deposit to both parties, and hold the money until we are satisfied that either the goods are returned to their original owner or the purchase is completed.

Postal orders and cheques sent as deposit must be made payable to Edward Halse, and crossed "Martin & Co."

FOR DISPOSAL

Drugs and Chemicals.

About 3 cwt. paraffin wax, block; 100 lbs. castor oil, unbleached; samples. Wesley Jones, Llanelli.

Literature.

Muter's "Materia Medica," with latest appendix, 7s. 6d. "Student," 32 Acklam Road, North Kensington, W.

Attfield's "Chemistry," latest edition, 9s.; Bentley's "Mannal," 6s.; Garrod's "Materia Medica," 5s.; Fownes' "Chemistry," 4s. H. Scott, Sandy, Beds.

What offers for "Year-book of Pharmacy," from 1870 to 1833, and *Pharmaceutical Journal*, well bound, vols. 1 to 31, inclusive. Hughes, Chemist, Altrincham.

Pharmaceutical Journal, vols. 1 to 15, bound, separate index; also a large quantity of loose numbers; offers wanted. Apply, G. S. Simpkins, 75 High Street, Stourbridge.

Pharmaceutical Journal, 1881 to 1889 inclusive (three numbers missing), also 1890 posted Monday after publication; what offers? Smith, Chemist, Embden Street, Manchester.

Formulas.

Reliable recipes, 6d. each; full set of 130 neatly copied in book, 7s. 6d.; send for list. "Chemist," Edwards, Wye, Kent.

Something new!!!—Brooks's reliable recipes hold their own because they are practical.—Send 1s. 6d. for three seasonable ones—"Winter Balm," entirely new remedy for chapped hands, frost-bites, roughness, &c.; "Chilblain Remedy," cleanly, safe, and inexpensive, gives instant ease, ultimate cure; "Balm of Glycerine and Licorice," grandest cough cure extant, cheaply produced, rapidly efficacious, suited for children and adults; detailed list of 400 recipes free. Tom Brooks, Chemist, Horsey, N.

Shop Fittings.

Glass bottles, job lines.—About 50 gross 3-oz. pale green pomades for corks, 4s. 6d. per gross; 2 gross 6-oz. screw nickel-capped pomades, 18s.; 1 gross 16-oz. ditto, 30s.; 3 gross 1-pint (reputed) green syrups, 7s.; 4 gross 1-pint ditto, 10s.; 2 gross 1-pint ditto, 15s.; 3 gross 1-pint ditto, 20s.; 3 gross 2-oz. white globe-necked panels, 7s. Hearn, 381 Kingsland Road, London.

Sponge case, very convenient, cheap. "Chemist," 84 Sherwood Street, Nottingham.

17 1-gallon stoppered green carboys, large japanned caps, gold labels, and 4 3-quart ditto, 14. 10s.; mahogany prescription desk, 15s.; bent Spanish mahogany counter case, 3 ft. by 1 ft. 6 in., mirrors and trays, sloping shelf, 14. 17s. 6d.; several nests of drawers; mahogany desk and glass case, 2 ft. 1½ in. wide, 2 ft. 2 in. long, 1 ft. 10 in. high, 14. 5s. W. Hawke & Son, Wild Court, London, W.C.

Entire fittings of a shop.—Mr. J. S. Ward, Principal of the Liverpool School of Pharmacy, who is retiring from the drug trade to devote all his energies to the increasing demands of the school, offers the whole of his fixtures, together with some of the stock; the fixtures are of the best; the drawers and counters are of mahogany, the cases of plate-glass, with mirror backs, and the bottles have cut-glass stoppers. For further particulars apply to J. S. Ward, Pharmaceutical Chemist, 36 Oxford Street, Liverpool.

Miscellaneous.

Patents and homœopathics for disposal to clear. 201/14.

Stoke's patent check til (new). Wilkinson, Normanton.

Seltzogenes, two 5-pint, one 3-pint (fig. 52), 20s. Leithead, West Hartlepool.

Dispensing scales, fig. 7, good as new, 10s. Tottle, Chemist, Star Hill, Rochester.

Poth's new label cabinet, never used, cost 24. 5s.; price 14. 15s. Joseph Mitchell, Barnsley.

Neet 46 mahogany drawers, counter, and wall-cases; homœopathic mother tinctures; cheap. Clayton, Oxford.

Marble mortar, 15 inches across top, outside, 2 inches thick, 8 inches high, 7s. 6d. Carter, 123 Graham Street, City Road, N.

50 boxes choice Princesses cigars, 7s. 6d. 100, cost 11s.; 12 boxes, in dispute, cost 15s., price 10s. 6d. 100. Slater, Beeston Hill, Leeds.

10 boxes choice 1885 Havana cigars, cost 34s., price 24s. 100; 25 50's choice cigars, cost 11s. 6d., price 6s. 6d. Slater, Beeston Hill, Leeds.

Lipscombe's patent filter; 5-pint seltzogene (Gémut); few dozen reginaris water; cash offers wanted. Morrison, Osnaburgh Street, N.W.

Ten gross 1-oz. stone bottles, 22s.; one gross 8-oz. ditto, 9s.; five 1-oz. McFarlane's morphine murias, 5s. oz.; "A Merry Christmas," in 7 in. wood letters, covered wool, frosted, 4s. 200/13.

Handsome electroplated rose-water fountain, self acting, fitted with fairy lights; novel window attraction; recently cost at Maw's 34. 15s.; for sale or exchange drugs or patents. Smith, Chemist, Gosport.

Job line.—Cheap little Turkey sponges, soft as velvet, for bathing wounds, eyes, &c., 1s. doz., 3 doz 2s. 6d., free; large honeycomb, hold gallon water, finest quality, 8s. 6d., on approval. Brooks, Chemist, Hornsey, N.

WANTED.

Bougie-mould, Maw's. 200/13.

A dental show-case for outside; good condition. Perkin, Tamworth.

Shop-rounds, ointment-jars, and sundries. Price to 200/40.

2-drachm pessary-mould. Particulars to Horsley, 274 Portobello Road, W.

Last edition of Attfield's "Chemistry"; state price. Weston, Ventnor, Isle of Wight

One copy *Pharmaceutical Journal*, 696, third series. Pond, 102 Brixton Hill, S.W.

Copper still and worm, complete; about 5 galls., good condition. Pond, 102 Brixton Hill, S.W.

A good second-hand set of tooth-forceps. Mr. Smith, 6 Shaftesbury Terrace, Ashley Road, Bristol.

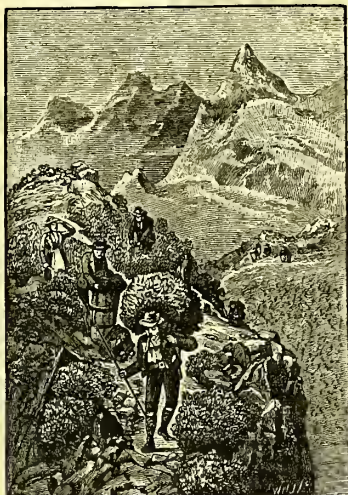
A handsome good-sized dental show-case, with or without specimens. J. Young, 28 North Parade, Halifax.

12-ft. mahogany counter, glass cased and shelved in front, nested with drawers behind, and globular bracket lamp; price delivered. H. Brown, 2 Market Place, New King's Road, S.W.

Addresses Wanted.

W. Hamer, late of Ivybridge; Hudson, late of Hoxton; Venables, late of Kingston; Diamond, late of Pembroke Dock; Dordridge late of Clapham Junction; Cooper, late Preston; Gillies, late of Brunswick Square; Stainton, late of Boston. 201/53.

A PINE HARVEST ON THE ALPS.

COLLECTING THE PUMILIO PINE TOPS FOR
G. & G. STERN'S PUMILINE.

STERN'S PUMILINE PREPARATIONS

For Rheumatism, Gout, Throat & Chest Affections, & Skin Disease.

EXCLUSIVELY OBTAINED FROM



THE SNOW-GROWN PINUS PUMILIO.

PUMILINE ESSENCE

Is a specially prepared volatile essence, distilled from a particular variety of pine, growing nearest the snow level on the Alps. It possesses exceptional medicinal properties when given internally, or in the form of inhalations, in the treatment of Pulmonary and Diathetic Affections, such as Phthisis, Rheumatism, Gout, &c. It is a valuable deodorizer and disinfectant, and has a peculiarly refreshing and fragrant odour.

PUMILINE JUJUBES

For Sore Throat, Cough, Hoarseness, &c., they give immediate relief.

PUMILINE LINIMENT

Specially beneficial for use in Chronic Rheumatism, Gout, Lumbago, Sciatica, &c. It is also invaluable for Throat and Chest Affections, and may be taken internally, in doses of 2 to 5 drops.

PUMILINE PLASTER

Is most effective in Chronic and Muscular Rheumatism, Lumbago, Sciatica, and also for Chest Affections.

One of the Physicians to H.R.H. THE PRINCE OF WALES writes:—"Nothing gave my patient so much relief as Stern's Pumiline."

Sir Morell Mackenzie writes:—"I consider most valuable preparation. It acts as an admirable tonic to the mucous membrane in cases of Bronchitis and Laryngeal Catarrh."

Another Eminent Physician writes:—"My patient was more quickly relieved by the use of Stern's Pumiline Jujubes than by any other means made use of by me during an experience extending over thirty years."

An Eminent Surgeon, F.R.C.S., writes—"I have used the Jujubes for Sore Throat and Loss of Voice, always with marked benefit. They are most agreeable and most reliable."

OVER 700 MEDICAL TESTIMONIALS AND NOTICES IN ALL THE LEADING MEDICAL JOURNALS.

G. and G. STERN'S TRADE PRICE LIST leaves a very large margin of profit to Chemists and the Trade generally, viz.:—

PRICES—

	RETAIL	WHOLESALE
PUMILINE ESSENCE	1/6 and 2/6 per bottle.....	15/ and 24/ per dozen.
PUMILINE EXTRACT	1/ per bottle.....	9/ per dozen.
PUMILINE JUJUBES	1/1½ and 2/3 per box	10/6 and 20/ per dozen.
PUMILINE OINTMENT	1/1½ and 2/9 per pot.....	11/ and 27/ per dozen.
PUMILINE LINIMENT	1/1½ and 2/9 per bottle	11/ and 27/ per dozen.
PUMILINE SOAP... (box of 3 cakes).....	1/6 and 9d., and 1/ per tablet.....	15/, 7/6, and 9/ per dozen.
PUMILINE PLASTER	1/1½ each	9/ per dozen.
PUMILINE DRY INHALER	1/6 each.....	14/ per dozen.

BESIDES WHICH AN ADDITIONAL DISCOUNT IS ALLOWED TO CHEMISTS AND THE TRADE.

G. & G. STERN, 62 Gray's Inn Road, LONDON, W.C.

Will send Show Cards and Literature Free on Application.

THE DIAMOND MARK.

To secure the best Hungarian Aperient Water

DEMAND THE DIAMOND MARK,

And insist upon receiving the HUNGARIAN APERIENT WATER sold by the APOLLINARIS COMPANY (LIMITED), LONDON.

OF ALL DRUGGISTS AND MINERAL WATER DEALERS.

NATURAL ARSENIO-FERRIC MINERAL WATERS OF**LEVICO**

SOUTH TYRO L.

DOSE—One Tablespoonful mixed with Seltzer or Red Wine three times a day.

Price per dozen Bottles, 12/ net; price per 100 Bottles, 86/ net. *Delivered free on rail London.*

They are particularly valuable in the treatment of Anæmia, Chlorosis, Syphilis, Skin Diseases, Menstrual Disorders, Scrofulous Diathesis, and most especially Nervous Affections of all kinds.

To be had of all Chemists and Druggists.

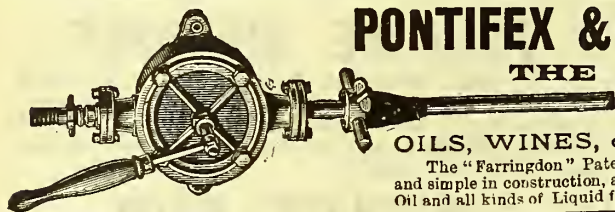
Agency, 24 Coleman St., London, E.C.

MILLAR'S BRITISH WINES.

ORANGE (suitable for Quinine), GINGER, RAISIN, COWSLIP, CHERRY, &c.

A. MILLAR & CO., Thomas Street, DUBLIN.

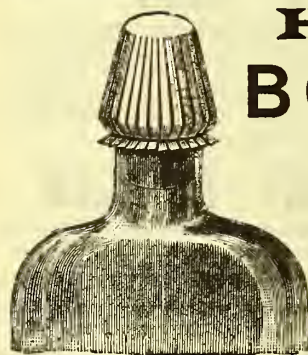
Sole Agents for London and District—H. J. ROYDANT & CO., 75 Acre Lane, Brixton, S.W.

**PONTIFEX & WOOD, LD.,** Farringdon Works, LONDON, E.C.**THE "FARRINGTON" PATENT PUMP,**

FOR PUMPING

OILS, WINES, & OTHER LIQUIDS FROM CASKS, &c.

The "Farrington" Patent Pump, with Improved Taper Barrel attachment. It is easy to work and simple in construction, and is admitted to be the best article in the market for pumping Paraffin Oil and all kinds of Liquid from barrels or tanks into other receptacles.

**HUNT'S BOTTLE CAPS**

Pleated Paper, from 8d. per Gross.

LONDON:

25 Great Windmill St., W.

Depôt of DIGNIE'S ENAZYMES.

DISPENSING BOTTLES & PHIALS

WE NOW SUPPLY OUR CELEBRATED

6 and 8 oz. Bottles at 7/6 per gross.

8 ,, 4 oz. ditto 6/6 ,,

All other Sizes and Kinds equally low.

I. ISAACS & CO.

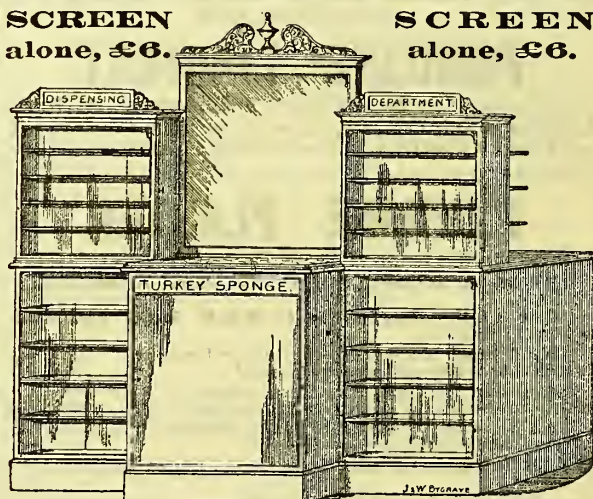
GLASS BOTTLE MANUFACTURERS,

25 Francis St., Tottenham Court Road, London, W.C.

Established upwards of 50 years. Bankers: London and Westminster Bank.

SCREEN alone, £6.

SCREEN alone, £6.



The above represents a solid mahogany Dispensing Screen and glass fronted Counter. The Screen has a glass case at each side, with plate-glass tablets and gold writing on top—"Dispensing Department"; and a plate-glass mirror with marble slab in centre, with mahogany ornamental wood on top. Doors of screen are glazed with best 21-oz. glass, and inside the cases are polished black, with three long shelves right along the back for dispensing bottles. The Counter opens in front with three solid mahogany doors glazed with best 21-oz. glass, centre for sponges underneath. Counter at the back is fitted with a nest of deal drawers and shelves. If 6 feet long, and 5 feet high to top of cases, complete, £11 10s.

J. & W. BYGRAVE.

SHOP FITTERS,

111 Shepherdess Walk, City Road, LONDON, N.

For further particulars please send Business Card.

NEW ESS. LEMON

W. J. BUSH & CO.'S "SPECIALITY."

PHENOMENAL SUCCESS!!!

IT was our pleasure this time last year to inform our numerous friends, and the trade generally, that we had, after considerable difficulty, succeeded in opening a manufactory in Messina for the manufacture of Sicilian Essences. The reason of our taking so bold a stroke was due to our finding it practically impossible to obtain from any of the usual sources regular supplies of absolutely pure Essence of Lemon, made from the finest fruit.

By making the Essences ourselves on the spot, we were enabled last season to offer to the trade **a quality that had never been seen before in this or any other market!**

Notwithstanding the great opposition we had to encounter, combined with the somewhat libellous statements that were made by our competitors, both here and at Messina—caused through common jealousy—the trade has appreciated our efforts and our success in being able to offer them an Essence so superior in quality, that **never before have we sold so large a quantity.** Through this fact we are pleased to inform our friends that it has been necessary for us to take another manufactory in **Villaggio Gazzi, Messina, which is no less than three times the size of the one in Strada Antico Cimitero.**

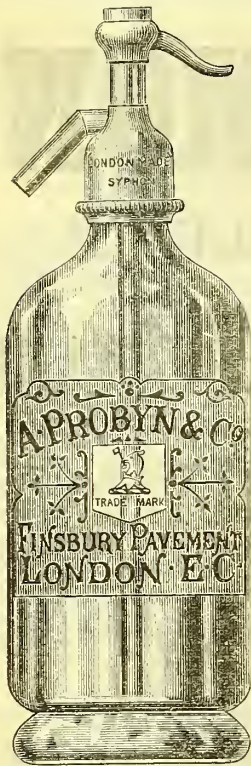
We are now in a position to state that we have **the largest manufactory of Sicilian Essences;** which is situated in the centre of Orange and Lemon Groves, whence we have arranged to obtain our supplies of fruit. The quality of our Essence is exceptionally fine this year, and we are confident that when you see our samples you will agree with us, that they are by a **long way the finest to be obtained.**

With regard to the crop, we believe it will be a very fair average one, but as the price of Essence Lemon is so exceptionally low, there is no room for a further fall below that of last season; besides, the price of Lemon Juice is at an unprecedented low figure, which, of course, must maintain the price of the Essence. However, as the duration of the crop is from three to four months, no definite estimate of the total yield is yet possible.

One of our partners is now in Messina superintending the manufacture.

W. J. BUSH & CO.

ARTILLERY LANE, LONDON.



BUY THE "LONDON MADE" SYPHON

AND SUPPORT BRITISH INDUSTRY.

It is the Cheapest, Strongest and Handsomest, and Best in the World.

PRICE 1/6 EACH.

Send for Samples and compare. Coloured Syphons extra.

The above are without Saucer Base, but they can be had with the Drip Saucer, 1/8 each.

Nickel plating from 2½d. each, Silver plating from 4½d. each. Marking on Metal Tops free, but Die charged for at cost price. Marking on Glass by acid process, from 1d. each; steel plate for printing from charged extra, according to design; no charge, however, will be made for this plate for orders of 1,000 and over.

BARNETT & FOSTER,

NIAGARA WORKS,

26^T EAGLE WHARF ROAD, LONDON, N.

No charge for packing if ordered in our 1-doz. Boxes, with hinged lids, price 2/9 each.

FOR FILTERS

Perfect in Mechanical and Chemical Action, Reliable Durable, Easily Cleaned.

LIPSCOMBE, OXFORD STREET, LONDON, W.

Makers to the Royal Family,

Original & sole inventor of the celebrated improved Filter

The ONLY GENUINE are made SOLELY by the Sons of the late Mr. Lipscombe. As there are watches and watches, so there are Filters and Filters, and the Trade are Cautioned against feeble Imitations of Lipscombe's Filters. To avoid grave disappointment, address—
LIPSCOMBE, OXFORD STREET, W.

This Caution is necessary as we have no connection with any other Firm TRADING under the same name—Caveat Emp'or,

ANDREWS' FILTERS

No. 1, 12/6. FOR THICK LIQUIDS.

Used Extensively by Manufacturing Chemists and Druggists.

Sent Carriage Paid on receipt of Postal Order or Cheque for 12/6 or 18/6.

FILTERING CLOTHS OF EVERY DESCRIPTION.

ANDREWS' FILTER CLOTH CO.,

330 High Holborn, LONDON, W.C.

No. 2, 18/6.



A WONDERFUL SUCCESS!!

NON-INTOXICATING BEER

Made from MASON'S Original

EXTRACT of HERBS

(REGISTERED.)

Composed of Yarrow, Dandelion, Comfrey, & Horehound.
ENLARGEMENT OF SIZE.

A Sixpenny Bottle makes EIGHT GALLONS of

HERB OR BOTANIC BEER

A NON-INTOXICATING BEVERAGE

Full of Body and Flavour, with a Creamy Head like Bottled Ale, the most perfect substitute for Alcoholic Drinks ever discovered, for either Summer or Winter.

BEWARE of mean and fraudulent imitations.

BEWARE of others copying our title.

MASON'S is the original and only genuine.

MASON'S is a Special Compound entirely from Herbs.

NO OTHER EXTRACT MAKES BEER LIKE IT.

Sold in Bottles at 6d., 1/, & 2/ each, with directions.

MASON'S WINE ESSENCES

Make Temperance Wines in a few minutes.

Ginger, Orange, Lemon, Raspberry, Black Currant, &c.

These are having a very large sale now, and are extensively advertised.

Sold in Bottles at 6d., 1s., and 2s. each.

Quotations on application.

SOLE INVENTORS & MANUFACTURERS:

NEWBALL & MASON,
Manufacturing Chemists and Botanic Druggists, NOTTINGHAM

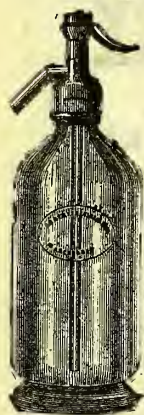
146 MINORIES LONDON E.C.
New York
Sydney
&c.

SODA WATER MACHINERY
AND ALL ACCESSORIES
FOR THE TRADE

BRATBY & HINCHLIFFE LIM.

HEAD OFFICE
SANDFORD ST. ANCOATS, MANCHESTER.

BOXES BOTTLES. MACHINERY
ESSENCES.
Catalogues Circulars Testimonials
Post Free



SYPHONS & SELTZOGENES

GREAT REDUCTION IN PRICE.

We have recently been entrusted with a most important Agency for the above-named goods. Our Principals are the best known firm in Paris, and the Syphons are undoubtedly the cheapest and strongest in the market. The tops are made of pure English Tin, guaranteed free from lead. The Seltzogenes are made on the well-known "Fevre" system, and each one is thoroughly tested before being sent out.



WE CAN GIVE TO LARGE AND SMALL BUYERS EXCEPTIONALLY LOW PRICES.
PLEASE WRITE US AT ONCE FOR PRICES, STATING QUANTITY OF EACH KIND REQUIRED

SODA-WATER MACHINERY.

MELBOURNE EXHIBITION, 1889, UNPRECEDENTED SUCCESS.

We have obtained at the above Exhibition

3 HIGHEST AWARDS POSSIBLE

A feat never accomplished before by any other house supplying requirements for the Aërated Water Trade.

These awards will carry with them **THREE GOLD MEDALS**, which were awarded as follows:—

- 1st—SODA-WATER MACHINERY (Highest Award possible).
- 1st—ESSENTIAL OILS & FRUIT ESSENCES (Highest Award possible).
- 1st—PATENT AND ORDINARY BOTTLES (Highest Award possible).

WRITE FOR NEW ILLUSTRATED CATALOGUE, POST FREE.

BRATBY & HINCHLIFFE, LIM.

Aerated Water Engineers and Glass Bottle Manufacturers,

SANDFORD ST., ANCOATS, MANCHESTER,

And at 146 MINORIES, LONDON, E.C.

QUARTER & HALF POUND TINS OF "ROYAL CHARTER" AND "UPPER CRUST" TOBACCO

Make most Suitable Presents for Coming Season.

SOLE MANUFACTURERS—

M. & R. PEACOCK, Kingsland Road, London, N.E.

A sample $\frac{1}{4}$ -lb. tin of both the above brands per Parcel Post, on receipt of Postal Order for 3s. 4d.



PASCALL'S GOLDEN MALTEX

PATENTED.

Contains 25% of Allen & Hanburys' Extract of Malt.
A NOVEL CONFECTION. — MOST SALEABLE.
Delicious Flavour. Brilliant and Attractive Appearance.
SELLS AT SIGHT.

Vide Dr. Tanner's Report, and *The Chemist and Druggist*, April 20th.

1/ Bottles, 9/ per doz.; 1-lb. Bottles, 21/ per doz.; and in 4-lb. Jars, 1/6 per lb.

HANDBILLS POST FREE ON APPLICATION.

OF ALL WHOLESALE HOUSES, OR OF THE MANUFACTURER,

JAS. PASCALL, BLACKFRIARS ROAD, LONDON, S.E.

"MYRTLE GROVE" TOBACCO

In 1-oz., 2-oz., and 4-oz. Packets, and $\frac{1}{4}$, $\frac{1}{2}$, 1 lb. Tins only.



TADDY & CO., 45 Minories, LONDON

ESTABLISHED 150 YEARS,

SNUFF, TOBACCO, AND SEGAR MANUFACTURERS.



Write for List of Specialities.

E. FOUGERA & CO.,

No. 30 NORTH WILLIAM STREET,

NEW YORK, U.S.A.,

Importers of and Agents for the Principal
FOREIGN MEDICINAL PREPARATIONS
AND SPECIALTIES.

AGENCIES AND CORRESPONDENCE SOLICITED.



MARSHALL'S TWICE AWARDED
GOLD MEDALS

FAROLA

AND OTHER PREPARATIONS OF WHEAT.

These Wholesale Houses supply the Goods at List Prices.

BARCLAY & SONS, Lim., 55 Farringdon St., E.C.
R. HOVENDEN & SONS, 33 Berners Street, Oxford Street, W., and 95 City Road, E.C.
MAY, ROBERTS & CO., 9 Clerkenwell Road, E.C.
F. NEWBERY & SONS, 1 King Edward Street, E.C.
J. SANGER & SONS, 489 Oxford Street.

DEPOT AGENCIES—
BUCKNALL & INGLETON, Bristol.
JOHN POLLOCK, 12 Heslingden St., Manchester.
DOWNER, THOMPSON & CO., Belfast.

JAMES MARSHALL, 24 Pimlico Road, S.W.
22 Adelphi Terrace, Glasgow

TO AERATED WATER MANUFACTURERS

WATSON'S

SOLUBLE ESSENCES

REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET.

Honourable Mention: International Food Exhibition, Agricultural Hall, London, Oct., 1880. Gold Medal: Soc. of Arts, Paris, 1889.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER,
A Pure Essence of the Finest Ginger.
Trade Price 5/- per lb.; 12 lbs. and upwards, 4/8.

HAY'S FORTIFIED ESSENCE OF JAMAICA GINGER.
For First Quality Ginger Ale.
Trade Price 5/6 per lb.; 12 lbs. and upwards, 5/-.

HAY'S GINGER ALE EXTRACT,
For Second Quality Ginger Ale.
Imparts Pungency, Colouring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma.
Trade Price 4/6 per lb.; 12 lbs. and upwards 4/-.

HAY'S GINGER ALE ESSENCE,
For Third Quality Ginger Ale.
This Essence makes a beverage that is unsurpassed by the so-called finest Belfast Ginger Ale.
Trade Price 2/11 per lb.; 12 lbs. and upwards 2/6.

THESE ESSENCES
Have obtained the Highest Testimonials from all the Medical Journals, and from the Principal Trade Journals in this and other countries.



REGISTERED
For ORANGE, VANILLA, and all other Essences.
SEND FOR PRICE LIST.

HAY'S HOP ALE ESSENCE.
For the manufacture of the Finest Aerated Hop Ale. This Essence is made from the choicest Hops grown, and is unrivalled for its peculiarly fine Hop Flavour and Aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer.
Trade Price 8/6 per lb.; 12 lbs. and upwards 8/-.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.
No. 1. Highly Concentrated.
Trade Price 8/6 per lb.; 12 lbs. and upwards 8/-.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS;
No. 2. Makes an exquisitely fine Lemonade.
Trade Price 6/6 per lb.; 12 lbs. and upwards, 6/-.

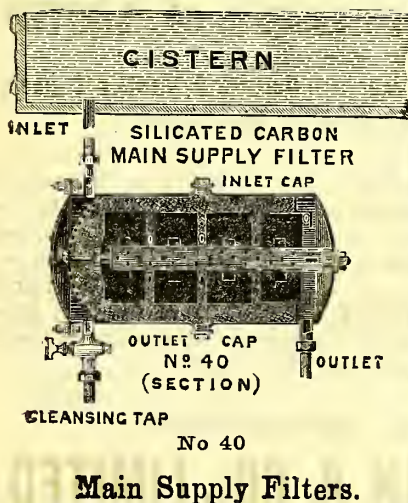
HAY'S LEMON FLAVOUR.
Imparts a Lemonade all the Fine Aroma and Flavour of the choicest Lemons.
Trade Price 5/- per lb.; 12 lbs. and upwards 4/8.

MANUFACTURING CHEMIST BEVERLEY ROAD

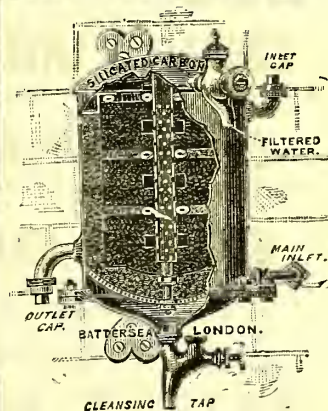
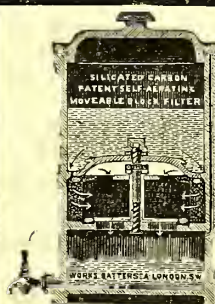
SILICATED CARBON

PATENT SELF-AERATING MOVABLE BLOCK

FILTERS.



By the use of these Filters, which are of everyday sale, the Flatness of Taste so common in Filtered water is entirely Obviated.



WRITE FOR FULL ILLUSTRATED PRICE LISTS AND TERMS TO THE
SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.

EIGHT PRIZE MEDALS AWARDED

GOODALL'S HOUSEHOLD SPECIALITIES.

YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each

GOODALL'S BAKING POWDER.

The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s. and 5s. Tins.

GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each

GOODALL'S BLANCMANGE POWDER

Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger-Beer. Packets, 3d. and 6d.

GOODALL'S BRUNSWICK BLACK.

or Painting Stoves, Grates, Iron, Tin, &c. 6d. and 1s. Bottles

GOODALL'S LAVENDER WATER.

A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each

GOODALL'S PLATE POWDER.

For Polishing and Cleaning all Metals. Boxes, 6d., 1s. and

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In $\frac{1}{2}$ - and 1-pint boxes, 3d. and 6d. each.

PROPRIETORS—GOODALL, BACKHOUSE & CO., LEEDS.

PATENT MEDICINES AND DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

TO THE CHEMISTS & DRUGGISTS OF GREAT BRITAIN.

ELEGANT ADDRESS: *St. George's, Middle St.*
COLEMAN,
GEORGE'S, NORWICH.
NORWICH,
December, 1887.

The Excise Authorities having created a difficulty as to the sale of Medicated Wine containing a certain percentage of alcohol, we obtained in January last, from the Inland Revenue Authorities, permission to sell our Liebig's Extract of Meat and Malt Wine, **WITH QUININE**, without a Wine Licence, and many Chemists not holding a Wine Licence have sold considerable quantities. In order further to meet the requirements of the trade, we have introduced a Liebig's Extract of Meat and Malt Wine, **NON-Alcoholic**, made from the juice of the Grape, Liebig's Extract of Meat, and Extract of Malt. This also can be **SOLD WITHOUT A WINE LICENCE**. Your orders will oblige either direct or through the Wholesale Houses.

Yours obediently,

COLEMAN & CO., LIMITED.

N.B.—The Wine is sold in Bottles, 2/9 and 4/6 each.
Trade prices on application.

P.S.—Where the Magistrate's Certificate is not held we are willing to pay the entire cost of a Retail Certificate (the holder of which can sell any kind of Wines) if an assorted order of 6 dozen is sent us of any of our preparations. List on application. Our Liebig's Extract of Meat and Malt Wine **WITHOUT QUININE** commands a very large sale, and is recommended by over one thousand medical men who have sent us testimonials in its favour.

SOLE MANUFACTURERS—

COLEMAN & CO., LIMITED,

ST. GEORGE'S NORWICH,

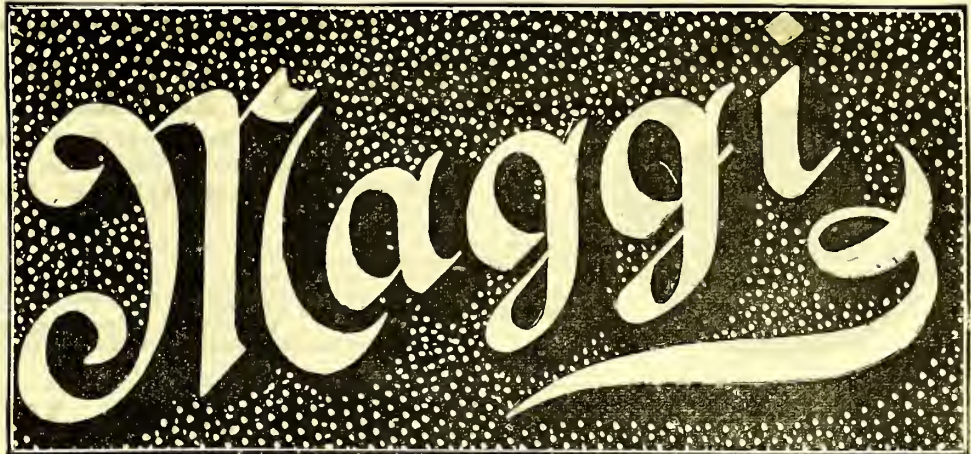
AND 3 NEW LONDON STREET, LONDON, E.C.

**LIFE'S
RESTORER.**

**FINEST
CONSOMMÉ.**

**HIGHEST POSSIBLE
HONOURS.**

PARIS EXHIBITION, 1889;
FOOD
AND COOKERY EXHIBITION,
LONDON, 1889;
&c., &c., &c., &c., &c.



LIQUID EXTRACT OF BEST FRESH BEEF.

A happy thought does not alone constitute a perfect invention; simplicity is needed to make it perfect.

"MAGGI" possesses this quality in a degree that renders it as indispensable in the kitchen as salt and pepper.

"MAGGI" is simply liquid EXTRACT OF BEEF, a teaspoonful of which, added to a cup of hot or cold water, makes at once a perfect BEEF TEA, which anyone, sick or well, will relish.

Two tablespoonfuls to a quart of water (adding Vegetables, &c.) will make a better Soup or Potage than hours spent over the fire.

The improvement in the quality of Gravies, Ragoûts, Stews, Hashes, Roasts, &c., by the addition of a few drops of "MAGGI," is amazing.

Unlike all other Extracts of Meat, "MAGGI" is most delicious, does not need the addition of salt and pepper, can be used by the most inexperienced, produces as good a Consommé or perfect Clear Soup as any first-class cook can prepare by the most elaborate and expensive means, and keeps good in any climate.

Soup Stock is now rendered unnecessary, as "MAGGI" is better, cheaper, and more nutritious for the sick, convalescent, and healthy.

In 2-oz., 1-lb., & 2-lb. Bottles, of all Grocers and Druggists throughout the world.

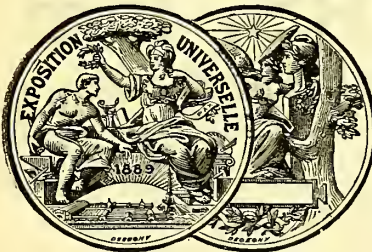
Wholesale Agents—E. Lazenby & Son; Samuel Hanson, Son & Barter; W. & D. Harvest; Crosse & Blackwell.



TOWER TEA
OBTAINED THE
HIGHEST AWARD

FOR TEA AT THE

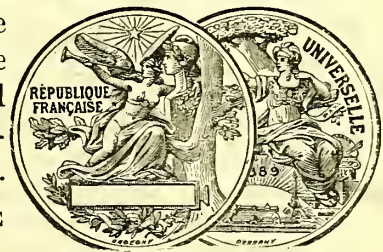
PARIS EXHIBITION.



PRIZE MEDAL, PARIS, 1889.

To avoid imposition see that the trade marks (a Tower, with the word "Strength" across it, and "Tower Tea") are on every package, without which none is genuine.

WHERE VACANCIES EXIST AGENTS ARE
APPOINTED BY



PRIZE MEDAL, PARIS, 1889.

THE GREAT TOWER STREET TEA CO., LIMITED
5 JEWRY STREET, LONDON, E.C.



ROBINSON'S LIEBIG'S BEEF WINE.

Composed of Liebig's Extract of Beef, Extract of Malt,
and sound Port Wine.

REPORT ON BEEF WINES.

From the results of my Analyses of various Beef Wines I have had occasion to examine, none have equalled as regards strength, purity of ingredients, and (of no less importance) the skilful and judicious manner in which the respective ingredients have been proportioned and combined, the Liebig's Beef Wine manufactured by Mr. B. ROBINSON, of Pendleton, Manchester.

It is in every sense a reliable preparation, embodying in a pleasing and palatable form all the acknowledged medicinal and nutritive properties pertaining to Liebig's Extract of Meat, Extract of Malt, and sound Port Wine.

WILLIAM ELBORNE, F.C.S., F.L.S.,

Lecturer on Materia Medica in the Owens College, Manchester (Victoria University).
December 15, 1888.

ROBINSON'S ORANGE WINE.

Specially prepared for Quinine Wine, does not deposit, will keep good in any climate, and well adapted for Export Trade. Supplied in Cask containing 9, 18, 30, 60, or 120 Gallons. Terms on application. [2]

PHARMACEUTICAL SHERRY WINE.

This Wine is well adapted for Pharmaceutical Preparations, and is the strength ordered by the B.P. Price, in 6-Gallon Casks, 5/6 per gallon; in 2 Gallon Jars, 6/- per gallon, carriage paid. Casks charged 7/6, Jars 2/6, and allowed if returned. Cash or satisfactory reference to accompany order.
B. ROBINSON, Distiller and Brewer of British Wines, Church St., Pendleton, Manchester.

WILKINSON'S COMPRESSED

They are introduced to the public to enable them to make their own HOP BITTERS, YEAST, HOME BREWING, and numerous other purposes. Full particulars given in each packet.

Samples and Prices sent on application to

A. WILKINSON & SONS, 37 CANNING PLACE, LIVERPOOL

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself.

Dealers in every description of Isinglass.

Best Hops compressed into small parcels of one pound and half-pound, and sent out in cases containing 30 lbs. each. These hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time.

ENGLISH HOPS.

DENAAYER'S

LIQUID PEPTONES STERILIZED

Free from microbes!
Keep good for ever in all climates.
118 BISHOPSGATE STREET WITHIN, LONDON, E.C.

DENAAYER'S PEPTONATE OF IRON. A bland, non-irritating and most easily assimilable ferruginous preparation. For debilitated constitutions, children, and aged people.

DENAAYER'S PEPTONE OF MEAT. A powerful restorative for all ailments of the stomach, stimulates general nutrition. Is retained when the stomach rejects all other food. Pleasant to taste. Or all Chemists and Wholesale Houses.

T. & F. J. TAYLOR'S



AERATED WATERS,
Newport Pagnel.

ESTABLISHED 1835.

SODA, POTASH, SELTZER, AERATED (without Alkali), and LITHIA WATERS, LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature of the Firm.

Parity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.C.S.

CIGARS, ETC.

At the Lowest Wholesale Prices.

La Juana	10/6 per 100, Sold at 2d. each.
La Trafalgar	15/0 ,, ,, 3d. ,,
El Sol Habaners,	22/ per 100, Sold at 4d. each.
Havannah 1885 Crop } &c, &c.	TOBACCO, CIGARETTES, &c.

Samples on receipt of 1s. 6d. in Stamps.

BEWLAY & CO., LTD.

Tobacco Manufacturers and Cigar Importers,

49 STRAND, and at 143 CHEAPSIDE, LONDON.

ESTABLISHED OVER 100 YEARS.

The Chemist and Druggist

SUPPLEMENT

Businesses Wanted.
Businesses for Disposal.
Premises to Let.
Auction Sales.

SATURDAY, DEC. 21, 1889.

Partnerships.
Situations Vacant.
Situations Wanted.
Miscellaneous.

NOTICE.

Advertisements for insertion in next week's issue of this Supplement will be in time for publication if received at the Office, 42 Cannon Street, London, E.C., by first post on Friday morning, December 27, 1889.

This Supplement will be given free to any Chemist and Druggist or Assistant who will call for it at 42 Cannon Street on Friday afternoon, or will be posted on Fridays to any one who sends an addressed postal wrapper.

OFFICES: 42 CANNON ST., LONDON, E.C.

CHEMISTS' TRANSFERS.

MESSRS. ORRIDGE & CO., 32 LUDGATE HILL, E.C.

CHEMISTS' TRANSFER AGENTS,

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

The business conducted by Messrs. ORRIDGE & Co. has been known as a Transfer Agency since the year 1843, and is well known to all the leading firms in the trade. VENDORS have the advantage of obtaining an opinion on value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment. PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

1.—£1242.—LONDON, E.C.—Good Family Retail and Dispensing Business, with some good Proprietaries attached; returns average £1242; net profits £450 to £500; well-fitted shop, and good stock; about £1,200 required.

2.—£500.—LONDON, N.—Profitable Retail and Dispensing; returns £500 yearly, at good prices; well-fitted shop, and good stock; rent £50 on lease; price £500, or offer.

3.—£700.—LONDON, S.W.—Good-class Dispensing and Retail; returns last year over £700; single-fronted, well-fitted shop, and good stock; vendor will sell at valuation if wished, or open to an offer.

4.—£1,200.—EASTERN COUNTIES.—General Retail and Mixed Business, established over 50 years; returns £1,200 yearly, with good profits; large shop, well fitted, good stock; about £350 required.

5.—£550.—SUFFOLK.—Unopposed good-class Retail and Dispensing Business; returns nearly £550; large double-fronted shop, and good stock; convenient house, good garden, &c.; about £500 required.

6.—£1,000.—DERBYSHIRE.—Fashionable town; Retail and Dispensing; returns over £1,000; well-stocked shop, and good house, on lease; valuation only required.

7.—£700.—SUSSEX.—Attractive locality; First-class Country trade; returns last year nearly £700; single-fronted, well-fitted shop, and good stock; large house, rent £34; price about £600; reasonable offer considered.

8.—£600.—ISLE OF MAN.—Retail and Dispensing Business, very profitable; no cutting; returns nearly £600 yearly; expenses very low; price £400; no qualification necessary.

9.—£1,300.—WALES (SOUTH).—Very old-established Mixed Business; held by the late owner many years; returns £1,300 yearly; well-fitted shop, and good stock; about £850 required.

10.—£1,150.—WILTS.—Old-established Dispensing and Retail Business, with Wine Agency; situate in best position in good market town; returns about £1,150, very profitable; good house and large garden, held on moderate rental; price to be arranged.

11.—£600.—SOUTH DEVON.—Attractive and much desired locality; old-established good-class Retail and Dispensing Business; returns over £600, with profits above the average; large handsome double-fronted shop, and good stock; about £500 required.

12.—£700.—STAFFORDSHIRE.—Main and Branch Business for disposal; Branch recently established; gross receipts £350; both businesses well stocked, and returns increasing; about £700 required.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

Other Businesses, Town and Country; particulars free on application. Personal applicants receive Messrs. O. & Co.'s direct attention and advice, where required, free.

TERMS FOR VALUATION ON APPLICATION. APPOINTMENTS BY POST OR WIRE HAVE IMMEDIATE ATTENTION. Messrs. ORRIDGE & Co. invite communications from COLONIAL and FOREIGN firms where business of a confidential nature requires the especial attention of a London agent.

SPECIAL NOTICE.—TO PRINCIPALS AND ASSISTANTS.

MESSRS. ORRIDGE & Co. Register Vacancies for Situations FREE OF CHARGE.
ORRIDGE & CO., 32 Ludgate Hill, LONDON, E.C.

F. J. BRETT,

VALUER, LEICESTER,

60 St. Stephen's Road.

References to principal London and Provincial Wholesale Houses, also to numerous clients throughout the United Kingdom.

BUSINESSES THOROUGHLY INVESTIGATED FOR BUYERS. 20 YEARS' EXPERIENCE.

YORKSHIRE.—Village Retail; neglected; good premises, large garden; rent £20; one room let for £6; price £60.

LIVERPOOL.—Good-class Retail; returns about £300; price £170.

WEST.—Light Retail, Dispensing and Prescribing; no heavy trade; returns £900; price £700, or valuation and small good will.

SURREY.—Light unopposed Retail, with Gilbey's Agency; returns £1,200; price £800.

LANCASHIRE.—Very profitable Retail; returns £850; vendor retiring; price £750.

YORKSHIRE.—Go d-class Light Retail, in good position, with ample scope for Mixed trade; returns £450; price £300.

GLOUCESTERSHIRE.—Light Retail, with excellent Specialities, having a large sale, in best position of fashionable town; returns £900; price £850, or valuation of stock and fixtures.

BUSINESSES FOR DISPOSAL.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

TO be sold, Surgeon's Retail; 7 years present hands, 8 years the previous; lease 10 years; house 6 rooms with back kitchen; rent £45; likewise Proprietary preparation, can be made a leading article. Apply by letter, Mr. Wilson, 166 Alcroft Road, London, N.W.

THE only Chemist and Druggist's Business in Low Moor and populous districts; go d profits; prescribing and tooth extraction; established over 50 years; best shop in neighbourhood; good house (can be sold). Inquire of Humphries & Co., Wholesale Druggists, Bradford.

£160 CASH, £100 by instalments.—Light Retail Business, few miles out; same hands 20 years; now under management, and takings are £400; net profit £175; owner when there did £600; rent £35, long lease; good house and garden. L. C., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

SUFFOLK.—For immediate sale, owner taken larger business; returns £650 in Light Retail, Dispensing, and Prescribing; large profits; good house, with garden stocked with fruit-trees; moderate rent; same hands many years; price £450; cash buyers only. W. H. M., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR sale, the old-established Family and Dispensing Chemist's and Mineral Water Business at Selby, in Yorks, successfully carried on for 40 years by Messrs. Cutting & Son, with the freehold of the premises; the shop is well fitted, and the mineral water plant partly new. For terms, &c., apply to Union Bank, Easingwold.

UNOPPOSED.—Good-class Light Retail and Dispensing Business, within a few miles of London; healthy locality, and very pleasant; returns £1,100; post office paid; rent; comfortable house and garden; genuine reasons for selling; price £300, or offer; every investigation courted. "Caunella," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

IMMEDIATE.—Proprietor will sell to cash purchaser very old-established Light Retail Business for valuation of stock and fixtures; a great sacrifice on cost price; good market town, population 8,000; ample scope; rent low; exceptional opportunity for young man to settle permanently on most favourable terms. "Vendor," 1 Bradford Street, Sbrewsbury.

BUSINESS WANTED.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, genuine Dispensing and Family Business in first-class West-end thoroughfare; principals on'y treated with; preliminary particulars required—locality, returns, profit, rental, duration of lease, lowest inclusive price. Address "Kudos," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

FOR SALE.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

PRACTICE, Dental, Advertising, old. Operating and Work Rooms, complete, including Chair, £20; Vulcanizer, £9; Teeth, £40; Furniture, £50; Gas Apparatus, £5; Lathes, £14; Tools, £10; and sundries expensive articles; takings £350; inhabitants 350,000; £100 cash prompt. "Nemo," 71 New Brigade, Leeds.

TO LET.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

GOOD corner Shop, in well populated district, and large number of houses lately erected and well let; good opening for Chemist's shop; none in neighbourhood; rent £25. For further particulars, apply 71 Bracebridge Street, Birmingham.

PARTNERSHIP.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

ADVERTISER, with small capital, desires a Partnership, or situation with view to same. S., 6 Southboro' Road, Hackney.

APPRENTICESHIPS.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

APPRENTICE, in a high-class Family and Dispensing business, with every opportunity for gaining a thorough knowledge; moderate premium. Apply, Alex. J. T. Long, Pharmaceutical Chemist, High Street, Guildford.

A VACANCY now occurs in a first-class Retail and Dispensing Business for an Ap. rentice, where, under the personal instruction of the proprietors, he could acquire a knowledge of every branch of the business; one who has passed Prelim. preferred. For terms, apply to J. Green & Co., Chemists, Swindon.

SITUATIONS OPEN.

3s. 6d. for fifty words; 6d. for every 10 words beyond.

WANTED, Junior Assistant, Mixed business. Apply, P. C., Meadow House, Meadow Lane, Leeds.

WANTED, single (indoor) Assistant. State experience and salary required to Cbas. M. Footitt, Chemist, Marlow, Bucks.

WANTED, on January 10, two Junior Assistants for a Mixed Dispensing business. W. Ashby, 115 Mansfield Road, Nottingham.

SENIOR ASSISTANT of good business habits; good penmanship very essential; outdoors. Ford, 70 Kennington Park Road, London, S.E.

WANTED for 1st of January, 1889, a good English correspondent for my Chemical Works and Wholesale Drug Business. J. D. Bieber, Hamburg.

WANTED, a Junior, used to a Dispensing business at once, for one month. Apply, personally if possible, "Chemists," 165 Hagley Road, Birmingham.

WHOLESALE.—Clerk required about 18 to 20 years of age, accustomed to bookkeeping. Apply, stating age, salary, and experience to "Ledger," care of H. Good & Son, 12 Moorgate Street, E.C.

SMART Junior; tall, gentlemanly in appearance and address, and accustomed to first-class quick counter trade; state age, height, salary required, and enclose photo. Wand, Chemist, Leicester.

WANTED, an Assistant (Minor qualifications), who has been accustomed to an agricultural and manufacturing town; good references; stating age, height, and salary required. Apply to S. C. Furnston, High Wycombe.

ASSISTANT required by first week in January; must be a quick and accurate Dispenser, and whose character must bear the strictest investigation. Apply, by letter first, to Goodman, 27 London Road, West Croydon.

TOWN Traveller wanted, to represent a first-class house; one having a connection amongst Saddlers, Grocers, Oilmen, Brush Warebonaemen, and Chemists; good references required. Address E. A. C., Messrs. Street, 30 Cornhill, E.C.

WANTED, a trustworthy and competent Assistant for a Light Retail and Dispensing business; one with a knowledge of photographic trade preferred. Apply, stating usual particulars, to F. Kirby, 114 Abington Street, Northampton.

WANTED, immediately, for pushing business, Junior or Improver, about 18; must be active, energetic, and obliging; state age, salary, and reference, enclosing photo. J. & J. Thompson & Co. (Limited), 192 Manchester Street, Oldham.

FOR December 28th, good Junior Minor man; permanency; personal application preferable. Parkes & Co., 196 Belsize Road, Kilburn.

WANTED, immediately after holidays, Indoor Assistant; about 22; accustomed to Dispensing business; one only kept; dwelling-house apart from business. State salary required, references, and all particulars to T. Fox, Great Malvern.

A GENTLEMANLY Assistant, in a high-class Homœopathic Dispensing business, early in January; abstainer. Write full particulars of qualifications, age, salary, &c., with photo (to be returned), to Gillett, Leyland Road, Southport, Lancs.

IMMEDIATE, a Junior Assistant; he must be well recommended as a neat and accurate Dispenser, and accustomed to a good-class business (not stores); height not under 5 ft. 8 in., and age not under 22. Apply, personally, at 317 Fulham Road, Brompton, S.W.

J. J. HORTON. Chemist, Stratford Road, would be glad to come to terms with some gentleman in Birmingham for half share of an Assistant, say 3 days at one shop, and 3 days at the other. J. J. H. would be willing to pay from £20 to £25, with board and lodging, as his share for the 3 days; must be someone well up in Dispensing and Prescribing, and strictly steady and honest.

IMMEDIATELY, Obliging and Industrious Junior, Turnover, or Improver, for Retail, Dispensing, and Photographic Business and Branch; trustworthy and of good address; Tooth Extractor and good Salesman preferred. State age, height, experience, and salary (outdoors), enclosing photo, and references, to "Pharmacy," 67 Freeman Street, Grimsby. Also Outdoor Apprentice. Personal applications preferred.

SPONGES.—Representative on Commission, to take the important towns on the South Coast, West of England, and the Eastern Counties. Also one for North of England, Dublin, and Belfast. Travellers in the Brush Trade calling on Chemists, Ironmongers, Grocers, and Drapers would be liberally dealt with. Advertisers established, and have a connection. Address, with all particulars, M. N., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

COMPETENT Outdoor Assistant; qualified; neat and industrious, obliging to customers, a fair Dispenser, and thoroughly trustworthy; must not be afraid of work; hours, 8.30 to 10.30, one afternoon and one evening off per week; Sunday duty, three evenings out of four; applicants are requested to state age, salary required (outdoors), and full particulars, by letter only in first instance, and to consider replies not acknowledged in a week as declined. Luxmoore, 20 St. John's Road, Clapham Junction.

IMMEDIATE.—A medical man in Western Australia wishes to engage a thoroughly competent Assistant, to devote his time to the management of a Chemist's business, and to attend to minor surgical cases, extract teeth, &c.; unexceptionable references required, and no one need apply whose character will not bear the strictest investigation; preference given to the holder of a Surgeon's as well as a Chemist's qualification; salary progressive £150—£200 (outdoors), and percent age of profit; 3 years' agreement. For further particulars, apply, by letter, to John Richardson & Co., Manufacturing Chemists, Leicester.

SITUATIONS WANTED.

1s. for twelve words; 6d. for every six words beyond.

JUNIOR (20); medium height; 5 years' experience. Babington, Waterloo Road, Market Rasen.

PART-TIME, Surgeon or Chemist; experienced Dispenser, well up in Retail. R. J., 51b Trinity Square S.E.

WHOLESALE Druggists.—Employment wanted at wet or dry counter; state salary. W., 32 Benedict Street, Bootle.

ADVERTISER (28), tall, married, one child, thoroughly experienced, seeks suitable berth. "Medical," care of Mr. Membury, Yeovil.

ASISTANT (24); others kept; Dispenser, Prescriber, Extractor; experience in retail wanted; low salary. Jones, 33 Upper Hope Place, Liverpool.

WHOLESALE.—Wanted a situation as Traveller; good references and experience. "Rhei," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER, Senior, or Dispenser; qualified; married (no family); first-class Chemist, active, and businesslike; references. Green, Isham, Wellingborough.

DISPENSER to Surgeon or Hospital; aged 23; 7 years' experience; height 5 ft. 11 in.; highest references. "Oinchona," Kelly's, Vigo Street, Regent Street, W.

CHEMIST wishes to place his son, aged 16, in a good business; had few months' experience. B. E. P., Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

DISPENSER.—Dispensing required morning and evening; experienced; £1 weekly. "Dispenser," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

JUNIOR or Dispenser (23); London or Midlands; abstainer. "Chemist," Congreve Street, Birmingham.

AS Assistant (22); 7 years' experience; good references. J. Snaith, 57 Adelaide Street, Southport.

AS Chemist's Assistant or Surgeon's Dispenser; aged 30; can Extract Teeth. Lex, Henfield, Sussex.

AS Assistant; 30; mixed country business. X, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MANAGER or Assistant; temporary or otherwise; in or outdoors; qualified. L., Mr. Morgan, Chemist, Hereford.

LOCUM-TENENS, for new year; experienced; references. A., Morton, 9 Oxford Street (st. Peter's), Manchester.

ASSTANT or Manager; 26; temporary or permanent; thoroughly experienced all round; 3 years' reference. "Liberty," 102 Walmgate, York.

AS Junior (21); 5 years' experience in good Mixed Country Business; tooth extractor; abstainer; good reference. "Jun or," 117 High Street, Lowestoft.

IMPROVER: by a son of a Chemist (18); in good business house; 3 years' experience at dispensing and counter. F. Griffith, Medical Hall, Canterbury.

JUNIOR; in London; small salary first 3 months; indoors; time for study; 5 years' references; aged 21; at liberty. Marshall, 32 White Abbey Road, Bradford.

AS Assistant; aged 27; 12 years' good-class experience; highest references; competent; unqualified; disengaged. B., 17 Richford Street, Hammersmith, W.

BRANCH: Assistant or Temporary; 40; married; experienced Dispenser, Prescriber, Extractor; good references; disengaged. "Chemicus," 70 North Street, N.W.

BEGINNING January; London or near preferred; Assistant; 11 years' experience; unqualified; moderate salary; abstainer. "Chemicus," Tasker Street, Walsall.

TO Druggists and Patent Medicine Vendors.—Wanted, employment by respectable man (30), with 11 years' experience and first-class reference to previous employers. E. P., 25 College Street, Dowgate Hill, E.C.

A QUALIFIED Gentleman wishes for the management of a small Branch Business previous to succession; interview arranged. "Chemist," Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

AS Manager or Senior Assistant; outdoors; 13 years' experience; first-class references; good berth abroad or in stores not objected to. Address, Watkins, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A GENTLEMAN, having an influential connection among Chemists in London and suburbs, also East Coast, is open to treat with a firm for the beginning of the year; highest references. Address, Cecil, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

A COMMISSION MERCHANT, with several years' experience in the Wholesale Drug Trade in New York, would be pleased to hear from anyone who may wish a reliable and experienced Agent to represent them in the United States, to introduce and sell specialties or staple articles in the Drug and Chemical line; good London references can be given. Address, "Manhattan," 25 Morland Road, Croydon.

TO Manufacturing Chemists, Mineral Water, Essence Distillers, &c.—A gentleman, with a very excellent connection among Chemists and Mineral Water Makers in the Midlands, South Wales, and South and West of England, desires re-engagement; good references: five years with last house; part expenses and commission; disengaged February 1. Address, 232/45, Office of THE CHEMIST AND DRUGGIST, 42 Cannon Street, E.C.

MISCELLANEOUS.

Special charges are made for Advertisements under this heading, which can be obtained on application.

TO Sell, £500, French and English Patents for a new Feeding Bottle; a fortune to be made in short time. Write to H. Maquet, 3 Rue Volney, Paris.

DENTISTRY.—First-class Mechanical work undertaken for the Profession at moderate terms; good West-end references as to ability, &c.; punctuality guaranteed. W. E. Hill, 220 High Holborn, W.C.

ALL Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to Mr. J. Tully (Hills Prizeman), Chemist, Hastings. Established 1872. References to past and present Pupils. Student's Herbarium, 100 specimens, 7s. 6d., post free.

PRELIMINARY.—Arithmetic and Metric System, 1s. How to Write an Essay, 3d. Cæsar Simplified, 1s. Knotty Points in Latin Grammar, 1s. 6d. MINOR.—Equations Simplified, 1s. Illegible Autographic Prescriptions, 1s. Notes on Dispensing, 1s. Prescriptions given at the Minor, 6d. "Chemist," care of Mr. J. Edwards, Wye, Kent.

ALL persons having any claim or demand against the Estate of John Henry Elmitt, late of Horncastle, Chemist and Grocer, are requested forthwith to send particulars thereof to Mr. C. M. Hodgett, of Horncastle, Bank Actuary, one of the executors.

FRED. W. TWEED, Solicitor, Horncastle.

First Quality, 9d. per lb., by using

In Jars (free). $\frac{1}{2}$ lb. 2s. 3d.: 1 lb. 4s. 3d. net.

Making 3 lbs. and 6 lbs., costing $\frac{1}{3}d.$ per oz., by simply adding Water and Glycerine.

Thro' any Wholesale House, or post free for P.O.

ROUSE & CO., 12 WIGMORE ST., LONDON, W. PHARMACEUTICAL CHEMISTS,

EXCHANGE COLUMN ADVERTISEMENTS will appear on page 8 (bottom folio), and must be received not later than **TUESDAY AT NOON**, to appear in the next issue.

All Advertisements for this Supplement and Exchange Column must be prepaid. Remittances payable to EDWARD HALSE,
and crossed MARTIN & Co.

EXCHANGE COLUMN.

**This section of "The Chemist and Druggist" must be closed for press by Thursday noon of each week.
Remittances payable to EDWARD HALSE.**

Limited to the Advertisement of Surplus Stock, Formulæ, Addresses Wanted, and Articles Wanted.

[illegible]

If you have no surplus stock to Advertise just now, keep this Form for future use.

Offices—42 CANNON STREET, LONDON, E.C.

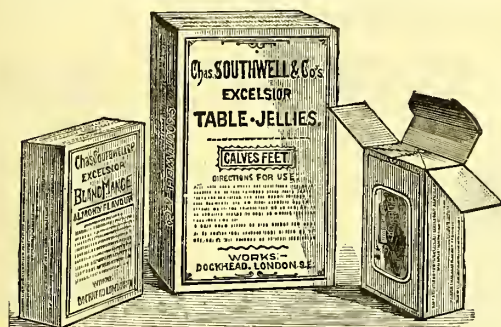
CHAS. SOUTHWELL & CO.

WHOLESALE AND EXPORT MANUFACTURERS OF

"EXCELSIOR" TABLE JELLIES

IN CARDBOARD BOXES,

Of ½-Pint, Pint, and Quart Size, packed in Wood Boxes free.



FLAVOURS:

Orange, Lemon, Calves' Feet, Vanilla, Raspberry, Noyeau, Cherry, Strawberry, Pineapple, and Black Currant.

ORANGE AND LEMON PEELS

(DRIED and FRESH).

This Season's Peel will soon be ready, and we shall be prepared to supply Fresh Orange and Lemon Peels specially cut (free from pith), and in small shreds about 1" x ½", in a condition most favourable for the manufacture of the Official Tinctures.

Samples will be sent free on application.

CHAS. SOUTHWELL & CO.

DOCKHEAD, LONDON, S.E.

TYRER'S SAUCES

GOOD
VALUE

AND

"BOROUGH" KETCHUP

THE GIANT 1d. BOTTLE OF SAUCE.

LARGEST IN THE TRADE.

In Half-Gross Boxes, at 8/6 per Gross.*

"BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE, OR READING SAUCE.

1d. Sample Bottles, dozen parcels	per gross	5/	extra quality	6/
½ gross boxes	5/6		8/	
1d. Giant Bottles, dozen parcels	8/		8/	
½ gross boxes	8/6		8/	
½ Bottles (flat or round), reputed ½-pint	18/		24/	
½ Bottles (flat or round), reputed pint	28/		32/	
1-pint Imperial Round Stoppered Bottles	30/		36/	
1-pint Imperial	50/		60/	
12½-gallon Casks (casks free) ..	20/		22/	

ROYAL CAFÉ SAUCE.

In 8-oz. square-stoppered bottles, 48/ per gross.

A rich, fruity Sauce of fine flavour, and worth especial attention, as being the most saleable in the market.

Samples of any kind Sent Free of all Cost by

PETER TYRER,

The "Borough" Ketchup and Sauce Maker,

70 LONG LANE, BOROUGH, LONDON, S.E.

Scotch Agency, WEST NILE STREET, GLASGOW.

Also Sold by W. & C. PANTIN, Upper Thames Street, LONDON, E.C.

BURGOYNE & CO., 16 Coleman Street, LONDON, E.C.

JOS. TRAVERS & SONS, 119 Cannon Street, LONDON, E.C.

SOLD EVERYWHERE.

Makes the best
GRAVIES, SOUPS, &
SAUCES.

IMPROVES
STEWES and
HASHES.

ASK YOUR GROCER FOR

GRAVINA

TRADE MARK.

REGISTERED

EDWARDS' GRAVY POWDER.

PUT UP
IN

Self-opening Canisters

1-lb., 1/10; ½-lb., 1/-; ¼-lb., 6d.

Sample Free on receipt of Business Card.

NOURISHING.

ECONOMICAL.

SOLE MANUFACTURERS—

F. KING & CO., LTD.

3 to 6 Camomile Street, LONDON;

26 WARING STREET, BELFAST.

SANTHA.

A Digestive EXTRACT OF TEA, made
instantly in Cup or Teapot.

The injurious action of tea upon the digestion is due to the tannin it contains; and as this dissolves instantly in hot water, no method of infusion can keep it out. Santha is the only form of tea that has no action upon either food or membranes; and it is not bilious like cocoa and coffee. The *Lancet* of May 4th, 1889, says:—"The aroma and the caffeine are preserved, and the tannin is neutralised and rendered innocuous." The *London Medical Recorder* of Feb. 20th, 1889, says:—"Santha possesses the aromatic and stimulating qualities of the crude leaf, minus its astringency." The *Illustrated Medical News* of August 31, 1889, says:—"We can recommend it as the most digestible and palatable form of tea yet submitted to us."

Santha is the only Tea suitable for Weak Digestions. Of Chemists, &c., 1s., 2s., 6d., and 6s.; or by post from works, 2d. extra.

SANTHA TEA COMPANY (LIMITED), Penarth Street, Hatcham, S.E.

Wholesale Agents—BARCLAY & SONS, Farringdon Street, E.C.

"RAMORNIE."

LIEBIG'S

Extract of Meat.

As supplied to the Admiralty, War, and India Offices.

1-lb. Jars..... per lb.	6/2	per doz.	74/0	2-oz. Jars..... per lb.	7/0	per doz.	10/6
½-lb. Jars..... "	6/4	"	38/0	1-oz. Jars..... "	7/8	"	5/9
4-oz. Jars..... "	6/7	"	19/9	½-oz. Jars..... "	5/0	"	3/0

QUOTATIONS FOR EXTRACT IN "BULK" ON APPLICATION.

Write for Detailed Price List to the Australian Meat Co., and 11 Fenchurch Avenue, E.C.

6 lbs. Carriage Free.

THE PURE MALT CO.'S EXTRACT of MALT

A Nutritive and Digestive Food.

THE PURE MALT CO.'S EXTRACT of MALT

Prepared in vacuo from Barley, and Peptonized.

THE PURE MALT CO.'S EXTRACT of MALT

A Powerful Aid to Digestion.



A SAMPLE BOTTLE OF EACH SIZE WILL BE SENT, CARRIAGE PAID, ON RECEIPT OF TRADE CARD AND 4/3 P.O.O. OR STAMPS.

BEING prepared in vacuo, by an approved method, it contains in a highly concentrated form the nutritive and digestive properties of the best Malted Barley, CARBO-HYDRATES, PHOSPHATES, and ALBUMINOIDS. Extract of Malt is pronounced to be one of the best digestive agents in all cases of faulty assimilation of the elements of nutrition. It derives its efficacy from a combination of all those valuable materials contained in the choicest malted barley. These powerful substances, resolved into dextrose and soluble malt sugar, do not ferment or produce acidity in the stomach, but are easily assimilated into the system. It also contains those natural saline compounds, PHOSPHATES of SODA, POTASH, LIME, &c., so necessary to the well-being of the system, in giving tone to blood, nerve, and brain; altogether nourishing and building up the constant waste of tissue and energy.

Extract of Malt is undoubtedly useful in Consumption and other wasting diseases, and is extensively used in a variety of ways. Mixed with Porridge, Gruel, Arrowroot, Sago, and all farinaceous foods, it renders them easy of digestion. Dissolved in Milk it is of great service, being pleasant to the taste and easily retained, not only when given to infants, but as a demulcent in Colds, Coughs, &c. Makes palatable that valuable restorative—COD LIVER OIL. Taken with the meals, in Coffee, Cocoa, or any beverage, it renders all the nutrient properties of food more easy of assimilation.

For Wholesale Terms in large quantities apply to

THE PURE MALT EXTRACT CO.

CAMBERWELL, LONDON, S.E.

City Office:—Mansion House Chambers, 20 Bucklersbury, London, E.C.

Sold by all Chemists, &c., in the principal Towns in the United Kingdom.

Telephone Number, 1852.

Telegraphic Address—CHEMICUS LONDON.

ADVERTISERS' AND BUYERS' REFERENCE LIST AND INDEX TO ADVERTISEMENTS

ADVERTISEMENTS APPEARING IN THIS ISSUE OF "THE CHEMIST AND DRUGGIST."

NOTE.—The Folios shown in this Index are those at the FOOT of the Page, and not at the Top. This arrangement is necessary in order to meet the requirements of the Post Office.

Foot of Page	Foot of Page	Foot of Page	Foot of Page
Alofas Co. 64	Dukes, B. 30	Levy, Julius. 40	Rankin & Borland. 46
Andrews, R. W. 12	Dunn, W. G., & Co. 65	Lipscombe & Co. 12	Rankin & Sons. 57
Anglo-American Oil Co. (Lim.) 63	Durrant, G. 64	Liverpool School of Pharmacy, The. 6	Rich, E. C., Co. 40
Apollinaris, The, Co. 10	Edwards, W., & Son. 50	Lofthouse & Saltner. 49	Ricqlès & Cie. 40
Text 862, Cover	Elliman, Sons & Co. Text 862	London Hospital and Medical School. 6	Robbins, J., & Co. 48
Arnold & Sons. 56	Evans, Sons & Co. 45, Cover	Loranz, H. 64	Robertson, J., & Co. 64
Austin & Co. 65	Evans & Sons (Lim.) 45, Cover	Lunberger Wax Bleaching Works. 65	Robinson, B. 18
Australian Drug Co. 36	Evans, Lescher & Wehh, London. 45	Lynch & Co. Cover	Roeke, Tompsitt & Co. 38
Australian Meat Co. 19	Farina, J. M. 28	Macfarlan, J. F., & Co. 47	Rosmarie Manufacturing Co. 54
Baelz, R., & Co. 47	Faulding, F. H., & Co. 41	Maonair, J. D., & Co. 65	Sanders, H. G., & Sons. 56
Barber, G., & C. (Lim.) 55	Felton, Grimwade & Co. 38	"Maggi" 17	Sanford & Son. 64
Barclay & Sons (Lim.) 27	Ferris & Co. 35	Manchester College of Chemistry and Pharmacy. 6	Sanger & Sons. 27
Barnett & Foster. 12	Fiuk, F., & Co. 64	Mann, C. A., & Co. 29	Sanitas, The, Co. Text 862
Barron, Harveys & Co. 42	Fletcher Bros. & Co. 14	Marion & Co. 34	Santha Tea Co. 19
Battle, J. R. 60	Fougere, E., & Co. 14	Marshall, J. 14	Seabury & Johnson. 56
Beach, J., & Sons. 64	Fratelli de Pasquale & Co. 41	Mather, W. 32	Sequah (Lim.) 46
Beecham, T. 5, 50	French Hygienic Society. 26	Maw, S., Son & Thompson. 6, 31, 55	Shirley, A. W. 53
Berry, F. H. 30	Fuerst Bros. 54	May & Baker. Cover	Silicated Carhou Filter Co. 15
Bewlay & Co. 18	Gent & Co. Text 832	May, Roberts & Co. 46	Simon, J. 56
Beyer Frères. 57	Goodall, Backhouse & Co. 86	McKesson & Robbins. 26	Smith, S., & Co. 62
Billaud. 40	Goodall, E. F. 57	Melin, C. 65	Smith, T. H., & Co. 48
Blondeau & Cie. 66	Good Tower Street Tea Co. 17	Miller, A., & Co. 10	Soul, W. H., & Co. 36
Bowling & Govier. 58	Greenwood, S. 57	Möller, P. 48	Southwell, Chas., & Co. 19
Brady & Martin. 42	Coloured Supplement	Morris & Callard. 49	Spirone, The, Co. 44
Bramwell, E., & Son. 65	Hamilton & Co. 62	Moss, J., & Co. Text 862	Spratts Patent (Lim.) 60
Bratty & Hinchliffe (Lim.) 13	Harker, C. R., Stagg & Morgan. 49	Mouilla Liquid Soap Co. (Lim.) 64	Steedman, J. 52
Brefitts (Lim.) 7	Harris & Co. Text 852	Mumford, G. S. Text 832	Steiner, E., & Co. 61
Brett, F. J. Coloured Supplement	Hay, W. 15	Muter, Dr. 6	Stern, G. & G. 9
Burroughs, James. 62	Haywood, J. H. 24	Nabali, E. 57	Sumner, R., & Co. Cover
Burroughs, Wellcome & Co. 33, 34	Hewlett, C. J., & Son. 44	Newhall & Mason. 12	Swift Specific Co., The. 34
Bush, W. J., & Co. 11	Holloway, P. 48	Newbery, F., & Sons. 23	Taddy & Co. 14
Bygrave, J. & W. 10	Hooper, W., & Co. Cover	Noakes, B., & Co. Text 862	Taylor, T. & F. J. 18
Cadbury Bros. Cover	Horn & Son. 64	Oldfield, Pattison & Co. 3	Towle, A. P., & Son. 39
Chauteaud, G. 40	Horn & Son. 64	Oppenheimer Bros. & Co. 47	Towle, E. T. 46
Clark, S., & Co. 58	Hunt, W. F., & Co. 10	Orme & Co. 30	Treatt, R. C. 53
Clarke, Samuel. 25	Isaacs, I., & Co. 10	Pascal, J. 14	Treble, G., & Son. 58
Clay, Doi & Co. 42	James, W. H. 61	Peacock, M. & R. 14	Typke & King. 48
Cocking & Co. 38	Jewsbury & Brown. 54	Peake, Allen & Co. 40	Tyrer, P. 19
Coleman & Co. 16	Johns, W. 50	Peterson, M., & Co. 48	Vaccine Association. 52
Colthurst & Harding. 56	Johnson & Co. 64	Phillips, G., & Co. 62	Van Houten's Cocoa. 35
Critchley, T. 64	Keith, B., & Co. 40	Pontifex & Wood (Lim.) 10	Vogt, G., & Co. 56
Curtis & Co. 47	Kemphorne, Prosser & Co. 39	Powell, A. E., & Co. 51	Warner, H. H., & Co. 4
Cyclostyle Co., The. 7	Kilner Bros. 59	Pronk, Davis & Co. 62	Warrick Bros. 53
Darton, F., & Co. 30	King, F., & Co. 19	Prosser, Taylor & Co. 37	Wellake, M. 52
Da Silva & Co. 64	Kuhn, B. 49	Pure Malt Extract Co. 20	Wenham Co., The. 57
Davy, Humphrey, & Co. (Lim.) 46	Lambert, S., & Co. 41	Quilliam, J., & Co. 61	Wilkinson, A., & Sons. 18
Day & Sons. 60	Layng, R. C. 64		Wood, Vincent. 24
Day, Son & Hewitt. 61	Lennon, B. G., & Co. 38		Wright, Layman & Umney Text 852
Dee Oil Co. 52	Levic Natural Mineral Water. 10		Wright, W. V., & Co. 34
Deaeyer's Peptone Co. 18			Wyleys & Co. 43
De St. Dalmaz, E. A. 48			Zuccato & Wolff. 7
Dinneford & Co. 48			
Doulton & Co. 65			

CLASSIFIED LIST OF ALL ADVERTISERS

Whose Announcements appear in "THE CHEMIST AND DRUGGIST." Those whose Names do not appear above are published in one of the other issues of this month.

AERTD & MINRIS Apollinaris (Hungarian) Aperient Water, Diamond Mark, Friedrichshall (Apollinarie) Barnett and Foster Chemists' Aerated Waters Association. Davis, R. Ellis (Ruthin) Hassall and Co. (Citric Acid Phospho) Hay, W. Idris and Co. Jewsbury and Brown Levico Springs Co. (Limits 1) Mille and Co. (Bourne) Taylor, T. and F. J. [See GINGER ALE.]	AGNCIES ABROAD Acard, Ed. Australian Drug Co. Cocking and Co. (Japan) Felton, Grimwade and Co. (Melbourns) Fougere and Co. (New York) Kemphorne, Prosser & Co. N.Z. Lennon, B. G., and Co. Levy, Jules Peake, Allen and Co. Petersen, P. J., and Co. Prosser, Taylor and Co. Rich, E. C., Co. Roberts (Paris, & Co.) Rooks, Tompsitt and Co. (Msl- bourne) Soul, W. H., and Co.	BAKING POWDER Dunn, W. G., and Co. Goodall, Backhouse & Co. BEESWAX Bowdlear, W. H., and Co. Lunemberger Wax Bleaching Works BICARB. SODA Brunner, Mond and Co., Lim. Howards and Sons May and Baker BISMUTH. PREP. Hearon, Squire and Francis Hewlett and Sons Howards and Sons May and Baker Symee and Co. White, Alfred, and Sons BLOOD MIXTURE Lincoln and Midland Counties Drug Co. BOOKS Davis, J. Gurney and Jackson Hargreaves, Dr. Longmans, Green and Co. Spon, E. and F. N. Whitla, W., M.D. BOTANIC BEER Newball and Mason BRUSHES Dukas and Co. Fordham, W. B., and Sons Kent, G. B., and Sons Mossley, David, and Sons	BOTTLE CAPPING Beach, J., and Sons Hunt, W. F., and Co. BOTTLES Aire and Calder Bottle Co. (Ld.) Barnett and Foster Barratt, B. H. Bratty and Hinchliff (Ld.) Brefitts (Lim.) Evans, Sons and Co. Gilbertson, H., and Sons Hearn, E. A., and Co. Hunt, W. F. (Cape) Isaacs and Co. Kilner Bros. Maw, Son and Thompson Mella, C. (Stoppers) Poths, H., and Co. Sanders, H. G., and Son Shirley, A. W. Toogood, W. Youldon, E. BOXES Austin and Co. (Cardboard) Ayrton and Saunders Chalmers, W. B. Noakes, B., and Co. Owen, J., Jr. Parmenter, I. W. & Co. Lim. Robinson and Sons Self Opening Tin Box Co. BUTTER COLR. &c. Johnsen and Jørgensen Oldfield, Pattinson and Co. CAMPHOR Fuerst Bros. Howards and Sons Keene and Ashwell (Homoeo- May and Baker	CAPSULES Denoual, J. (Medicinal) Duncan, Flockhart and Co. Evans, Sons and Co. Hooper, B., and Co. Maw, S., S. n and Thompson Robertson J., and Co. CAPSULES (METALLIC) Bette and Co. Brooks, Peel and Co. Melin, C. (Macinney) Sanders, H. G., and Son CSCRA SAGRADA Duncan, Flockhart and Co. Evans, Sons and Co. Ferris and Co. Mose, J., and Co. Squire and Sons CASTOR OIL Fuerst Bros. CATALOGUE Evans, Sons and Co. Maw, Son and Thompson May, Roberts and Co. Sanger and Son Schutze, F., and Co. JEMENT Kay Bros., Lim Mumford, E. CHALK PRECIP. Dunn and Co. Levermore, Aug., and Co. White, A., and Sons
---	---	--	---	---

CHEMICALS

Andreas, Oscar and Co.
Boehring, C. F., and Sohne
Bramwell and Co.
Brunner, Mond and Co., Lim.
Bush, W., Son and Co.
Dunn and Co.
Fletcher Fletcher and Stevenson
Fuerst Brothers
Goodall, Backhouse and Co.
Hill, A. S., and Son
Howards and Son (Pharm.)
Kuhn, B.
Levermore, Ang., and Co.
Lofthouse and Saltmer
Lorenz, H.
May and Baker
Morris and Callard
Moss and Co.
Prunk, Davis and Co.
Stern, G. and G. (Pumiline)
Smith, T. and H., and Co.
Tyspe and King
White, A., and Sons
Zimmermann, A. and M.

CHEST PROTECTRS

Bailey, W. H., and Son
Evans, Sons and Co.
Hockin, Wilson and Co.
Liverpool Lint Co.
Lynch and Co.
Maw, Son & Thompson, S.
Pattinson, G.
Sanger and Sons
Schutze, F., and Co.
Thompson, Walters, Hole and Co. (Limited)
Wood, Vincent

CHLORIDE OF GOLD

Rowland, L.

CHL. OF POTASH

Burroughs, Wellcome and Co.
Hooper, B., and Co.

CHLORIDE OF LIME

Government Sanitary Co.
National Chemical Co.

CHLORODYNE

Davenport (Browne's)
Towie, A. P., and Son

CHLOROFORM, &c.

Duncan, Flockhart and Co.
Macfarlan, J. F., and Son
Smith, T. and H., and Co.
Wright, Layman and Umney
Zimmermann, A., and Son

CITRIC ACID

Hassalls (Phospho)

COCAINE-HYDRO

Boehring, C. F., and Sohne
Howards and Sons

COCA WINE

Armbrrecht, Nelson and Co.
Evans, Sons and Co.
French Hygienic Soc.

COCOA & CHOCOLATE

Cadbury Bros
Fry and Sons
Rowntree and Co.
Van Houten's Cocoa

COD-LIVER OIL

Allen and Hanburys
Burroughs, Wellcome and Co.
Evans, Sons and Co.
Hill, A. S., and Son
Moller, P.
Lofthouse and Saltmer
Oppenheimer Bros. and Co.
Smith, T. J.
Woolley, Sons and Co.
Wright, Layman and Umney

COFFEE

Symington and Co. (Coffee
Essence)

COLPSIBLE TUBES

Betts and Co.
Brooks, Peel and Co.
Sanders, H. G., and Son

COMP. MEDICINES

Allen and Hanburys
Blyton, T. Bage, and Co.
Burroughs, Wellcome and Co.
Fuerst Bros.
Hooper, B., and Co.
Leo and Co.
Wyleys and Co.

CONFECTIONERY

Blyton, T. Bage, and Co.
Gibson, E., and Sons
Kerfoot, T.
Pascall, J.
Warrick Brothers

CONCENT. LIQS.

Evans, Sons and Co.
Fletcher, Fletcher & Stevenson

CORN CURES

Maw, Son and Thompson, S.
Seabury & Johnson (Plasters)
Thompson, M. F.
Young, H.

COTTON WOOL

Haynes, G., & Co. (Absorbent)
Robinson and Sons (Absorbent)
Sanger, J., and Sons
Seabury and Johnson

CRSED LINSEED

Mumford, G. S.

DISINTEGRATORS

Carter, J. H.

DOG MEDICINES

Spratts (Patent)

DENTIFRICES

Fentiman & Co.
Jewellery and Brown
Kennedy, The Co.
Maw, Son and Thompson, S.
Newbery and Sons
Reeh, H.
Sutton, O., and Co.
Thompson and Capper
Warrick Bros.
Woods, W. (Arona Nut)
Wright, C., and Co.

DISINFECTANTS

Government Sanitary Co.
Hamilton and Co.
Jeyes' Sanitary Compounds
National Chemical Co.
Seabury and Johnson
Sanitas Co.

DRUGGISTS' SUP.

Ayrton and Saunders
Bailey, M., and Co.
Barclay and Sons (Limited)
Davy, Humphrey, & Co.
Evans, Lescher and Webb
Evans, Sons, and Co. (Savars)
Gibbertson, H., and Sons
Hill, A. S., and Son
Hockin, Wilson and Co.
Irris and Co.
Jessop, R. H., and Co.
Kay Bros., Lim.
Lynch and Co.
Mariot, E., and Co.
Maw, Son and Thompson, S.
May, Roberts and Co.
Rankin and Sons (Cork Mats)
Sanger and Sons
Schutze and Co.
Thompson, Walters, Hole & Co.
Tookood, W.
Wood, Vincent

DRUMS, CANS, &c.

Noakes and Co.

DYES

Prunk, Davis and Co.

EAU DE COLOGNE

Farina, J. M.
Mann, C. A., and Co.
Shirley, A. W.

ELECTRIC APPAR.

Berry, F. H.
Dartman, F., and Co.
Gent and Co.
Orme and Co.

EMBROCATION

Elliman, Sons and Co.

ENAMEL

Fordham, W. B., and Sons

ENEMAS

Bailey, W. H., and Son
Ingram and Son
Lynch and Co.
Maw, Son and Thompson, S.
Sanger and Son
Schutze, F., and Co.

ENGRAVERS

Barker, W., and Son
Corson, J. R. (Glass)

ESSENTIAL OILS

Bush, W., Son and Co.
Cooking (Japan Peppermint)
Cummock, J.
Duckworth and Co.
Evans, Sons and Co.
Fratelli de Pasquale and Co.
May and Baker
Stevenson and Howell
Symes and Co.
Treat, E. C.
Warrick Brothers
Wright, Layman and Umney
Vogt, G., and Co.

ESSENCES

Beckett, W.
Brady and Hinchliffe (Ld.)
Burgoyne, Burdidge and Co.
Bush, W. J., and Co.
Cummock, J.
Duckworth and Co.
Goodall, Backhouse and Co.
Hay, W.
Idris and Co.
May and Baker
Oldfield, Pattinson and Co.
Stevenson and Howell
Tyrer, P. (Anchovies)
Woolley, Sons and Co.

ETHER

Duncan, Flockhart and Co.
Howards and Son
May and Baker
Robins

EUCALYPTUS

Anderson and Adams
Evans Sons and Co.
Godfrey and Cooke
Hockin, Wilson and Co.
Maw, Son and Thompson, S.
Schutze, F., and Co.
Tookood, W.

EXTRACTS, FLUID

Allen and Hanburys
Barber, G., and Co.
Burgoyne, Burdidge and Co.
Evans, Sons and Co.
Fletcher, Fletcher & Stevenson
Hearon, Squire and Francis
Hooper, B., and Co.
Moss and Co.
Oldfield, Pattinson and Co.
Potter and Clarke
Wright, Layman and Umney

EXTRACT, MEAT

Australian Meat Co.
Bovril (Limited)
Brand and Co.
Deane's Peptone Co.
Liesie Co.
"Maggi"

FEEDING BOTTLES

Breffits, E. and Co., Lim.
Evans, Sons and Co.
Hearn, E. A., and Co.
Hockin, Wilson and Co.
Kilner Bros.
Maw, Son and Thompson, S.
Marriot, E., and Co.
May, Roberts and Co.
Thompson, Walters, Hole and Co. (Limited)
Tookood, W.

FLY PAPERS

Ford, Shapland and Co.

FILTERING

Andrews, R. W.
Doulton and Co.
Lipscombe and Co.
Mawson, Swan and Weddell
Silicated Carbon Filter Co.

FOOD (Infants' & Invalids')

Allen and Hanburys
Baelz, R., and Co.
Bovril (Limited)
Brand and Co.
Bragg, J. L. (Charcoal Biscuits)
Goodall, Backhouse and Co.
Hearon, Squire (Malted)
King, F., and Co., Lim.
Liebig Co.
"Maggi"
Marshall, J.
Motherhead & Co. (Benger's
Nestle, H. Food)

GINGER ALE

Hay, W. (Essence)
Mills, R. M., and Co.

GLYCERINE

Fink and Co.
Fuerst Bros.
Price's Candle Co.
Van Geelkerken and Co.

GRANULAR PREP.

Curtis and Co.
Evans, Sons and Co.
Hearon, Squire and Francis
Hill, A. S., and Son
Kerfoot, T.
Wright, Layman and Umney

GUM

Fink (Arabic, &c.)
Hyde, Nash and Co.
Knight and Co.
Levermore, Ang., and Co.
Prunk, Davis and Co.

GUTTAPERCHA

Duncan, Flockhart and Co.

HAIR PREP.

Bates, F. W.
Brodie, J. (Imperial Hair Dye)
Cheesebrough Mfg. Co.
Edwards and Co.
Trueitt, H. P. (Limited)

HERB BEER EXTS

Newhall and Mason
Oldfield, Pattinson and Co.
Potter and Clarke

HERBALISTS

Butler, McCulloch and Co.
Newhall and Mason (Extract
of Herbs)
Potter and Clarke (Extract of
Herbs)
Wilkinson, A., and Sons (Com-
pressed Hops)

HOMOEOPATHIC

Epps, J., and Co.
Gould, E. and Son
Keene and Howell
Leath and Ross
Thompson and Capper
Watson and Wates

HOPS

Wilkinson, A., and Sons

HOP ALE ESSENCE

Hay, W.

HYPOPHOSPHITES

Duncan, Flockhart and Co.
Dunn and Co.
Fletcher, Fletcher and Co.
Symes and Co.
Tyspe and King

HOSPITALS

Bolingbroke House
London Homeopathic

INHALERS

Anderson and Adams
Evans Sons and Co.
Godfrey and Cooke
Hockin, Wilson and Co.
Maw, Son and Thompson, S.
Schutze, F., and Co.
Tookood, W.

INSECTICIDES

Sanford and Co.
Stetler and Co.
Vogt, G., and Co.

INK [See MARKING]

Bewley and Draper
Duncan, Flockhart and Co.

JELLIES (TABLE)

Southwell, C., and Co.

KETCHUP

Tyrer, P.

LAMPS

The Wenham Co. (Limited)

LARD**LEECHES**

Fitch and Nottingham

Potter and Clarke

LIME JUICE

Evans, Sons and Co.
Idris and Co.

LINT

Liverpool Lint Co.
Maw, Son and Thompson, S.
Newsome, O.
Robinson and Sons
Seabury and Johnson

LIQUORICE

Robinson and Wordsworth

LOZENGES

Allen and Hanburys
Blyton, T. Bage, and Co.
Gibson, E., and Sons (Manfrs.)
Hill, A. S., and Son
Kerfoot, T.
Martindale, W.
Pascall, J.
Haines and Co.
Randall and Son
Warrick Bros.

MACHINERY

Beyer Freres.
Burroughs, Wellcome and Co.
Carter, J. H.
Goodall, E. F.
Holroyd & Co. (Limited)
McFerran, J. A.
Melin, C. (Capsuling)
Pontefix and Wood
Werner and Pfleiderer

MAGNESIA

Andreas, Oscar, and Co.
Bush, W., Son and Co.
Dinneford
Henry, T. and W. (Calcedine)
Hill and Sons, A. S.
Kerfoot, T. (Citrate)
Murray, Sir James, and Son

MALT EXTRACT, &c.

Baelz, R., and Co.
Burroughs, Wellcome and Co.
(Kepler's)
Hearon, Squire and Francis
Hockin, Wilson & Co.
Oppenheimer Bros. and Co.
Pure Malt Extract Co.

MARKING INKS

Barber, G., and Co. (Orimson)
Hickiss, J.

MEDICINE CHESTS

Day, Son and Hewitt (Veteri-
nary)

MENTHOL

A1 Menthol Depot, A. W.
Shirley, Proprietor
Cocking and Co.
Hockin, Wilson and Co.
Maw, Son and Thompson, S.
Shirley, A. W.

MERCURIALS

Fuerst Brothers
Howards and Sons
May and Baker

METHYLATED**SPIRITS**

Burrough, J.
Harvey, J. W., and Co.
Jones and Co.
Phillips, G., and Co.

METHYLENE

Robbins, J., and Co.

MICROSCOPES

Darton, F., and Co.
Perken, Son and Rayment

MILK

Nestle, H. (Condensed)

MIXING**MACHINERY**

Bracher and Co.
Carter, J. H.
Werner and Pfleiderer

MORPHIA

Macfarlan, J. F., and Co.
Smith, T. and H.

MUSTARD

Johnson, J. H. and S. (Ess. Oil)

OILS, PAINTS, &c.

Anglo-American Oil Co. (Lim.)
Colthurst and Harding
Fox, W., and Sons
Prunk, Davis and Co.

OPTICIANS

Darton, F., and Co.
Perken, Son and Rayment
Raphael, J., and Co.

OINTMENT BASES

Burroughs, Wellcome and Co.
Cheesebrough (Vaseline)
Grindley (Petroleum Jelly)

OPHTHALMIC

Pomies, Dr.

OTTO OF ROSE

Fuerst Bros.
Shipkoff and Co.
Treat, K. C.

PEPSINE, &c.

Burroughs, Wellcome and Co.
Fletcher, Fletcher & Stevenson
Newbery (Lactarin)
Warner and Co. (Ingluvin)
Zimmermann

PAPAIN FINKLER

Kuhn, B.

PARALDEHYDE

Zimmermann, A. and M.

PATENT AGENTS

Dukes, B.
Horn and Son

PATENT MEDICNS

Alofas Co.
Armbrrecht, Nelson and Co.
Atkinson and Barber (Infant
Preserv)
Barclay and Sons (Limited)
Beecham (Pills)
Beedzier, J., and Co.
Crouch, F. B. (Waters)
Da Silva and Co.
Edwards and Son
Evans, Lescher and Webb
Fennings' (Powders)
Goodall, Backhouse and Co.
Grosgrain, C.
Holloway (Pills and Oint.)
John's Liver Pills
Kemp, W. H.
Lalor (Phosphodyne, &c.)
Lincoln (Clarke's Mix.)
May Roberts and Co.
Newbery and Sons.
Oil of Oint Co.
Powell, A. E. and Co. (Moon-
seed Bitters)
Redmond's Stomach Wash
Roberts and Co. (Foreign)
Sequah (Limited)
Smith, Sam
Swift's Specific Co.
Warner, H. H., & Co.
Wilson, A. (Bunter's Nervins)

PERFUMERY,**FANCY SOAPS**

Blondeau and Co.
Burroughs, Wellcome and Co.
Cheesebrough Manufacturing Co.
Chiswick Perfumery Co.
Cook, E., and Co.
Coward and Co.
Dee Oil Co. (Limited)
Durrant, Geo.
Evans, Sons & Co. (Fossoline)
Ewen (Soaps)
Farina, J. M.
Foulkes, W. J.
Giraud Filis
Greensill, T. S., and Son
Johnson and Co.
Mann, C. A., and Co.
Maw, Son and Thompson
Mouilla Liquid Soap Co. (Lim.)
Newbery and Sons' (Berdees')
Osborne, Baur & Cheeseman
Pears' Soap
Price's Patent Candle Co.
Rouse & Co.
Sainsbury, S. (Lav. Water)
Shipkoff and Co.
Shirley, A. W.
Steelman, J.
Thompson, Walters, Hole and Co. (Limited)
Treat, K. C.
Trueitt, H. P. (Limited)
Vigis, L.
Vogt, G., and Co.
Warrick Brothers
Wedlake, M.
West, T. (Ocell's Monas)
Woolley, Sons & Co. (Powder)

PETROLEUM

Anglo-American Oil Co. (Lim.)

PEPPERMINT OIL

Cocking and Co.

PEROX. OF HYDR

Dunn and Co.
Robbins and Co.

PHARM. PREPS.

Allen and Hanburys
Baelz, R., and Co.
Barron, Squire and Co.
Blair, L.
Brady and Martin
Burgoyne, Burdidge
Burroughs, Wellcome & Co.
Chantelard, G.
Chassins and Co.
Dee Oil Co. (Limited)
Duncan, Flockhart and Co.
Ferreis and Co.
Fletcher (Lqrs. for Syrups)
Fruncau, E.
Hearon, Squire and Francis
Hewlett and Son
Hill, A. S., and Son
Hooper, B., and Co.
Howards and Sons
Keith (Conc. Tinctures)
Lorenz, H.
May and Baker (Phenacetine,
Rankin and Borland
Ricques and Co.
Roberts and Co.
Symes and Co.
Tucker, J., and Co.
White, Alfred, and Sons
Willows, Francis and Butler
Woolley, Sons and Co.
Wyleys (Various)

PHOTOGRAPHIC

American Camera Co.
Botwright and Grey
Howards and Son (Chemists)
Marion and Co.
May and Baker
Orme, J., and Co.
Perken, Son and Rayment
White, Alfred, and Sons

PINE PRODUCTSBurroughs, Wellcome and Co.
Stern, G. and G.**PILLS (Coated, &c.)**Allen and Hanburys
Beecham, Thomas
Bade's Gout Pills
Evans, Sons and Co.
Holloways
McKesson and Robbins
Newbery and Sons
Penny Quinine
Towler, E. F., and Co. (Coated)
Wyleys and Co.**PILL MACHINES**Pindar, J. W.
Robertson, J., and Co. (Coating)
Toogood, W. (Coater)**PLASTERS**Cooper and Co.
Evans, Sons and Co.
Johnson and Johnson
Mather, W.
Quilliam, J., and Co.
St. Dalmas, A. De
Seabury and Johnson
Thompson, M. F.
Young, H.**PODOPHYLLIN, &c.**Keth, B., and Co.
Smith, T. and H.**POLISHING**Bradley & Bourdas (Albatum)
Fordham, W. B., and Sons
(Limited)
Osakey, John, and Sons
Griffiths, T. M.**PORCELAINGOODS**

Toogood, (E. C. Pots, regist.)

PRINTINGBowers Bros.
Cyclostyle Co.
Davis, J., and Co. (Limited)
Ford, Shapland and Co.
Silverlock, H.
Townsend, J.
Zuccato and Woolf.**PUMILINE**

Stern, G. and G.

QUININE SALTSAndreas, Oscar, and Co.
Beckinger, C. F., and Sohne
Howards and Sons
Kuhn, B.
Rivers, Hicks (Penny Quinine)
Zimmermann and Co.**RENNET**Duncan, Flockhart and Co.
Johnsen and Jorgensen
Oldfield, Pattinson and Co.**RESPIRATORS**Arnold and Sons
Hockin, Wilson and Co.
Schutze, F., and Co.**SACCHARIN**Allen and Hanburys
Burroughs, Wellcome and Co.**SALICIN**

Macfarlan and Co.

Smith, T. and H., and Co.

SALICYLIC ACID

(Kolbe's)

Fuerst Bros.

SALOL

Kuhn, B.

SAUCES, PICKLES

Goodall, Backhouse and Co.

Tyrer, P.

SCHOOLS, &c.Bailey and Coates
Central School of Chemistry
and Pharmacy
City School of Chemistry and
Pharmacy (Lim.)
Liverpool School of Pharmacy
London Homeopathic and
Medical School
Manchester College
South London School of
Pharmacy, Lim.
The School of Pharmacy
Westminster College**SOAP**Blondeau and Co. (Vinolia)
Chiswick Soap Co.
Cook, E., and Co.
Fordham, W. B., and Sons
Pears' Soap**SELTZGENES**Brathby and Hinchliffe, (Ld.)
Evans, Sons and Co.
Fevre, T.

Gerault, E. and Co.

Idris and Co.

May, Roberts and Co.

SHEEP DIP

Fletcher, Bros. and Co.

SHOP FITTERS

Bowling and Govier

Bygrave, J. and W.

Corsan, J. E.

Evans, Sons and Co.

Howlett, S.

Natali, E. (Show Cases)

Potts, H., and Co.

Treble, G., and Co.

Treble, G., and Son

Yates, W. S.

SPONGE

Maw, Son & Thompson (Bags)

Peterson, M., and Co.

SPIRITBurroughs (Pure and Methyl.)
Harvey, J. W., and Co.
Jones and Co. (Methyl.)
Macnair, A., and Co.
Macnair, J. and D., and Co.
Phillips and Co.
Smith, Stephen and Co.**SPECTACLES**Botwright and Grey
Darton, F., and Co.
Perken, Son and Rayment
Raphael and Co.**STAMPS (RUBBER)**Hickisson, J.
Pollard, A. W.**STOPPERS**Austin and Co. (Sprinklers)
Barnett and Foster
Sanders, H. G., and Son**STOVES**

Clark, S. and Co.

SURGICALAyrton and Saunders
Bailey, W. H., and Son
Barclay and Sons (Limited)
Cooking, J. T.
De Lue, G. V.
Eichmann Bros. and Walsh
Haywood, J. H.
Ingram and Son
Liverpool Patent Lint Co.
Mestivier and Co.
Robinson and Sons
Schutze, F., and Co.
Schoenfeld Frères
Thompson, Walters, Hole and
Co. (Limited)
Wood, Vincent
Woolley, Sons and Co.**TAR**

Oritchley (Gloss)

SUGAR

Gibson, R., and Sons

SULFONAL

Burroughs, Wellcome and Co.

May and Baker

SYPHONS

Barnett and Foster

Brathby and Hinchliffe (Ld.)

Favarger and Co.

Fevre, T.

Kilner Bros.

Prudden and Dubost

SYRINGES

De Lue, G. V.

Schoenfeld Frères

SYRUPS

Fletcher, Fletcher (Liquors)

Idris and Co.

TILL

Stokes, G. R. & Co. (Lim.)

TIN CANISTERS

Noakes, B., and Co.

TEACave, Johnson and Co.
French and Langdale
Gt. Tower St. Tea Co.
Santha Tea
United Kingdom Tea Co. (Ld.)
Walker and Dalrymple**TOBAC.—CIGARTS**

Bewlay and Co.

Pescocock, M. & B.

Taddy and Co.

THERMOMETERS

Bailey, W. H., and Son

Barry, F. H.

Darton, F., and Co.

Perken Son and Rayment

TOILET

Fordham, W. B., and Sons

Hoggood and Co.

Mumford, G. S.

Quelch, H. C.

Simon, J.

Truefit, H. P. (Limited)

Vigis, L.

TOOTH PASTE

Jewsbury and Brown

Maw, Son and Thompson, S.

Quelch, H. C.

Sutton, O., and Co. (Block)

Wilson, A. (Bunter's)

Woods, M. (Arecas)

TRADE MARKS

Dukes, B.

Horn and Son

TRUSSES

Ayrton and Saunders

Bailey, W. H., and Son

Haywood, J. H.

TYPE-WRITING

Pollard, A. W.

Richards, J. M.

URETHANE

Howards and Sons

VACCINATION

Vaccine Association (Lymph)

VALUERS AND**TRANSF. AGENTS**

Berdoe & Co.

Brett, F. J.

Crocker, G. B.

Greenwood, S.

Orridge and Co.

VERMIN KILLER!

Battie, J. R.

Sanford and Son

Steiner and Co.

VASELINE

Chesebrough Manufacturing Co.

VETERINARYDay and Sons
Day, Son and Hewitt
Elliman, Sons and Co.
James, W. H. (Bilster)
Mort de Chantilly, P.
Spratts (Dogs)
Sutton, F., and Co.
Walker, Troke and Co.
Wyleys and Co.**VINEGAR**

Newham and Pickard

VINOLIA

(Superfatted Medi-

cal and Toilet)

Blondeau and Co.

WHOLESALE AND**EXPORT DRUGS**

Allen and Hanburys

Baron, Harveys and Co.

Brothers, J. and Co.

Burkoyne, Burdages and Co.

Bush, W., Son and Co.

Clay, Doel and Co.

Coward, G. F., and Co.

Davy, Humphrey and Co.

Evans, Sons and Co.

Evans, Lescher and Webb

Evans and Sons (Limited)

Faulding, F. H., and Co.

Farris and Co.

Fox, W., and Sons

Goodall, Backhouse and Co.

Harker, Stagz and Morgan

Hearon, Squire and Francis

Hewlett and Son

Hill, A. S., and Son

Lothhouse and Saltmer

Macfarlan, J. F., and Co.

Oldfield, Pattinson and Co.

Potter & Clarke (American)

Sumner, R., and Co.

Sykes and Co.

Thompson and Capper

Thompson, Walters, Hole and

Co. (Limited)

Walker, Troke and Co.

Willows, Francis and Bntler

Woolley, Jas. Sons and Co.

Wright, Layman and Umney

Wyleys and Co.

WINES, SPIRITS

Coleman and Co. (Meat)

Durrant, G. (Orange) Malt

Goodall, Backhouse and Co.

Harvey, J. and W., and Co.

Iris & Co.

Jones and Co.

Millar, A., and Co.

Phillips, G., and Co.

Robinson, B.

Smith, S., and Co. (S.V.B.)

BERDOE'S TRIPLE FRENCH PERFUMES



THESE PERFUMES have been known to the trade for many years past, and their steadily increasing sale is the best proof of the appreciation in which they are held. Notwithstanding that the prices of some brands of perfumes have been reduced, F. NEWBERRY & SONS find it both impossible and needless to offer any other advantages to buyers than—(1) the excellent quality of the Perfumes themselves, (2) their price. The object kept in view is not to produce goods which may be sold at a given price and leave a given margin of profit, but to produce such as shall equal or surpass a given standard of quality.

BERDOE'S TRIPLE

PLAIN STOCK BOTTLES of 20 oz., 10 oz., and 5 oz.	£ s. d.
Ess. Bouquet	
Frangipane	
Jasmin	
Jockey Club	
Millefleurs	
New Mown Hay	
Opoponax	
Patchouli	
Rondeletia	
Stephanotis	
Ylang Ylang	
per 20 oz.,	0 8 7
per 10 oz.,	0 4 4
per 5 oz.,	0 2 3

The above are the leading Essences, and to these the special attention of customers is asked. Those who desire greater variety will find in "Newberry's Catalogue" a more extended list.

FRENCH ESSENCES.

	£ s. d.
Violets	
Wood Violet	
White Rose, 20 oz., 9s. 10d.; 10 oz., 5s. 1d.;	
5 oz., 2s. 7d.	
Eau de Cologne	
Lavender Water	
per 20 oz.,	0 4
" 10 "	0 2 3
" 5 "	0 1 2

Berdoe's Perfumes, in Handsome Show Bottles for the Counter, Rose Cut Stoppers, Vitrified Opal Shield Labels with Gold Border and Black Letters, from 11s. 6d. each.

Established A.D. 1746.

F. NEWBERRY & SONS,



1 & 3 KING EDWARD STREET, LONDON, E.C.

VINCENT WOOD,

28a, 29, 30, 31 Paternoster Square; 10, 11, 12, 13 Rose Street, Newgate Street,

LONDON, E.C.

ESTABLISHED 1840. Telegraphic Address—"ACME LONDON."

Factories at Stratford, Nottingham, and Rose St.

DEPOTS AT PARIS, NEW YORK, AND BRUSSELS.

The Inventor and Sole Manufacturer of the

"EUREKA" MEDICATED PINE WOOL FELT APPLIANCES,

Consisting of CHEST and LUNG PROTECTORS, &c.,

Now having the Largest Sale of any such appliance in the World.

If you do not hold a Stock, order at once, it will pay you, but beware of frauds.

I also Manufacture

Trusses, Elastic Hosiery, Suspensory Bandages, Ladies' and Gentlemen's Belts, every kind of Surgical Appliances, Chest Expanding Braces, Obstetric Binders, &c., &c.

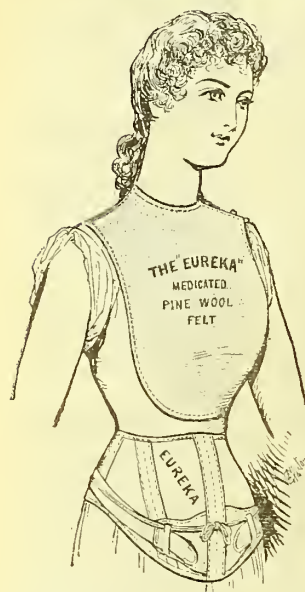
THE LARGEST MAKER IN THE WORLD.

My New Truss Works, fitted with all modern appliances, will be opened first week in January, 1890.

SPECIAL ORDERS DELIVERED SAME DAY.

Chemists, or buyers generally, are invited to inspect my goods, they then can purchase them through their Wholesale Houses.

I also supply Models under Glass Show Cases, Show Cards, Glaciers for Windows, Circulars with Names and Addresses upon and printed in all modern languages, Blocks of various kinds, &c., free of charge to those buying my Goods.



The "EUREKA" Medicated Pine Wool Felt Appliances.



The ACME CUIRASS BRACE and Ladies' Eureka Belt. Worn separately if required

Mr. VINCENT WOOD personally attends daily at his office, 29 Paternoster Square, from 10 a.m. to 12 30, and from 3 p.m. to 6 p.m., Saturdays at 1 p.m., giving customers the benefit of his great and varied experience in the selection of goods suitable for various climates.

WINTER GOODS.

Before ordering Chest Protectors, &c., write for sample of

HAYWOOD'S PATENT VENTILATING,

The only Chest Protector made on scientific principles.

Manufactured from Pure Natural, Scarlet, and Medicated Pine Wool. Made also in Vests, Drawers, Combinations, Chest and Back Protectors, Bodices, Waistcoats, Sleeping Socks, Gout Gloves, &c.

Show Stand sent gratis with orders for not less than One Dozen.

Chest Protectors and other Appliances for winter made also in Chamois Skins, Knitted Wool, Fleecy, Felt, Medicated Pine, &c.

MAGNETIC BELTS,

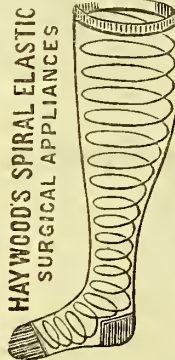
Chest & Back Protectors, & Socks.

CHILBLAIN SOCKS.

Fleecy Sleeping Socks and Knee Caps, Patent Pile Surgical Elastic Knee Caps, Socks, and Stockings.

PATENT SEAMLESS, PATENT PILE, and other Elastic Surgical Stockings, &c., in Thread Silk, Cashmere, Scarlet, Pine, and Natural Wool.

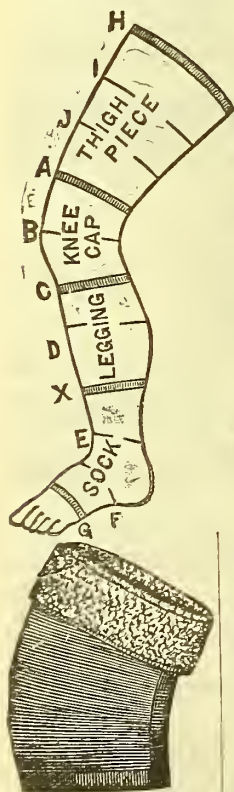
HAYWOOD'S SPIRAL ELASTIC SURGICAL APPLIANCES



PATENT 4682 (Scarlet)



PATENT.



Patent Pile, Protected, 14,618. The Pile lying over the India-rubber Cords, protecting them and forming a smooth soft surface to the limb.

Hot Water Bottles and Covers. Respirators. Inhalers. Bronchitis Kettles. Throat Sprays. Waterproof Coats, Cloaks and Driving Aprons. Footballs, Shin Guards, and Athletic Appliances, Belts, Chest Expanding Braces, Trusses, Suspensory and other Bandages, Druggists Sundries, Invalid and Nursery Appliances, &c.

J. H. HAYWOOD, CASTLE GATE, NOTTINGHAM.

Clarke's Newly Designed "Pyramid" Nursery Lamp Food Warmer, with New Registered Panakin.



N.B.—NO ALTERATION IN THE PRICE OF THE OLD PATTERN "PYRAMID" FOOD WARMER.

CLARKE'S IMPROVED PANAKINS (REGISTERED) FOR USE WITH CLARKE'S "PYRAMID" NURSERY LAMP.

By this invention any liquid food can be poured out, or drunk, without scum or grease passing through the spout, and prevents spilling when poured into a Feeding Bottle, so objectionable with all other Panakins.

These Panakins will fit all the old "Pyramid" Nursery Lamps, and can be purchased separately.

WHOLESALE PRICES { No. 1 ... 30/ per dozen. } Cash discount, 5 per cent.
LAMPS COMPLETE { " 2 ... 33/ " }
 " " " 3 ... 36/ " }

N.B.—Extras. Porcelain Panakins per dozen, No. 1 ... 8/ ... Lids ... 2/
 " " " " 12 ... 8/ ... " ... 2/
 " " " " 3 ... 9/ ... " ... 3/

Tin Panakins, No. 1, 8/ ... No. 2, 10/ ... No. 3, 12/
 Clear Glasses 4/ ... Roughed, 6/ ... Opaline, 8/ ... Coloured, 9/ ... Ruby, 8/

N.B.—Ask for CLARKE'S PANAKIN, and see that his name and the registered number (Registered 91,241) is on the Panakin, and trade mark "PYRAMID."

Clarke's Patent "PYRAMID" NIGHT LIGHTS are the only Lights suitable for these Lamps. Sold Retail by all respectable dealers, and Wholesale by the Patentee, S. CLARKE, "PYRAMID" AND "FAIRY" LIGHT WORKS, CRICKLEWOOD, LONDON, N.W. London Show Room—31 ELY PLACE, HOLBORN CIRCUS, E.C.

CLARKE'S ADJUSTABLE BED-TRAY (COUSINS' PATENT)

FOR INFANTS AND INVALIDS,

For use with CLARKE'S "PYRAMID" NURSERY LAMP FOOD WARMER, with his NEW REGISTERED PANAKIN.

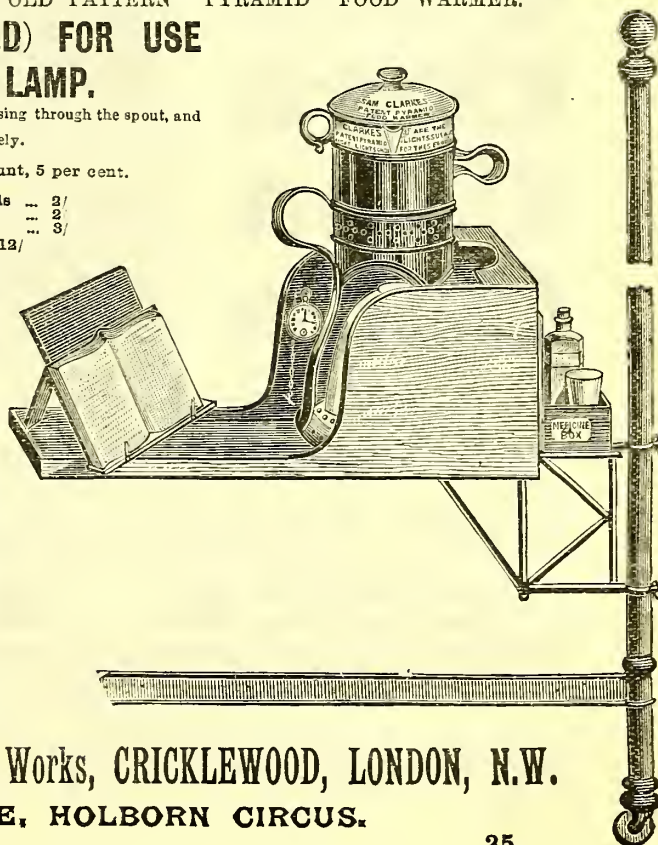
This is an invaluable Invention, and useful appliance at the bedside, suitable for Invalids, and particularly for Parents whose Infants require Feeding during the night. It obviates the necessity of getting out of bed, as everything required for use can be put on the TRAY. The Tray is adapted for use in connection with Clarke's "Pyramid" Food Warmer, and when not required can be turned to the wall in such a manner as to Shade the Person in Bed from the Rays of the Light.

Invalids will find it a Great Comfort, for any book, plate, basin, &c., can be placed thereon ready for use, and obtained without altering the position in bed. By means of a Slide, the Tray can be pulled forward to the position or length required. It is Highly Recommended by the Medical Profession, and can be obtained from most dealers in Clarke's "Pyramid" and "Fairy" Lamps.

Tray, 15/, with Book Rest & Medicine Box, 21/, less 33½ per cent. Food Warmer, see above.

If with Brass Bracket, 4s. extra. Adjustable Brass Support for book rest, 5s. extra

DIRECTIONS FOR FIXING.—Place the Clips round the bed-post, insert the Thumbscrew in the square hole at the end of same, and screw as tightly as possible. The Clips being of spring steel, they will fit any size post. A little cloth or washleather should be placed round the bed-post to prevent scratching the post.



SAML. CLARKE, "Pyramid" and "Fairy" Light Works, CRICKLEWOOD, LONDON, N.W.

SHOW ROOMS—31 ELY PLACE, HOLBORN CIRCUS.

NOTE REDUCED PRICES OF QUININE PILLS.**LIST OF "McK. & R." CAPSULE^D PILLS**
OF THE BRITISH PHARMACOPŒIA AND OTHER STANDARD AUTHORITIES.

McKESSON & ROBBINS,
WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,
[ESTAB. 1833.] **NEW YORK, U. S. A.** [ESTAB. 1833.]

Supplied by the Principal Wholesale Houses in the Trade throughout Great Britain and Ireland.

The reputation of Gelatine-Coated Pills has been created by our manufacture.	DOZ. BOTTLES containing 25 PILLS.		containing 100 PILLS.	Being completely sealed, all substances are perfectly preserved from oxidation.	DOZ. BOTTLES containing 25 PILLS.		containing 100 PILLS.
Aloin.....	$\frac{1}{10}$ gr.	5/	16/	Quinine, Bisulphate.....	$\frac{1}{4}$, $\frac{1}{2}$ gr.	5/	16/
".....	$\frac{1}{10}$ gr.	6/	20/	".....	1 gr.	5/	16/
".....	$\frac{1}{10}$ gr.	7/	24/	".....	2 gr.	5/6	18/
".....	$\frac{1}{10}$ gr.	11/	40/	".....	3 gr.	7/6	26/
" Compound.....	7/	24/	24/	".....	4 gr.	9/6	34/
" and Strychnine.....	7/	24/	24/	".....	5 gr.	11/6	42/
" Strychnine and Belladonna.....	7/	24/	24/	" Sulphate.....	$\frac{1}{4}$, $\frac{1}{2}$ gr.	5/	16/
" or Aperient, No. 1 (Clark).....	9/	32/	32/	".....	1 gr.	5/	16/
" No. 2, No. 3, No. 4.....	7/	24/	24/	".....	2 gr.	6/	20/
Morphine Muriate.....	$\frac{1}{4}$ gr.	7/	24/	".....	3 gr.	8/	28/
".....	$\frac{1}{4}$ gr.	9/	32/	".....	4 gr.	10/	36/
Narcotic Extracts (Brown-Sequard).....		15/	56/	".....	5 gr.	12/	44/

A Complete List of Formulas and Prices will be mailed promptly on application.

In ordering, be careful to specify "McK. & R." CAPSULED PILLS.

Originated 1870, by McKESSON & ROBBINS, New York, U.S.A. Merchants, Shippers, and the Wholesale Houses in the Trade are supplied by Messrs. S. MAW, SON & THOMPSON, 7 to 12 Aldersgate Street, London, E.C.; Messrs. BURROUGHS, WELLCOME & CO., Snow Hill Buildings, London, E.C.; and Messrs. HOCKIN, WILSON & CO., 38 Duke Street, Manchester Square, London, W.

Coca
Coca
Coca
Coca



Tablets
Lozenges
Elixir
Tea

SOLE PROPRIETORS—

THE FRENCH HYGIENIC SOCIETY OF LONDON, 6 CONDUIT STREET, LONDON, W.
REGENCY STREET,

whence will be forwarded to any applicant a Pamphlet containing the testimony of eminent British and Foreign Medical Authorities to the invaluable properties of the Coca Preparations.

RETAIL PRICES.

Coca Tablets and Lozenges in boxes, **1/-, 2/6, & 4/-** per Box. Coca Elixir, **3/-** per Bottle.

Coca Tea in tins of 1 lb. **4/-, 1/2 lb. 2/-, 1/4 lb. 1/-.**

COCA TOBACCO.

We take this opportunity of thanking the numerous Chemists all over the Kingdom who patronised us and sold our Coca Tobaccos. We now beg to inform them and the Trade generally that, the difficulty with the Customs having been satisfactorily settled, we are now prepared to execute all orders entrusted to us for these Tobaccos, with our other preparations of Coca (as above), which are now commanding a ready sale.

COCA TOBACCO, Mild, Medium, and Strong .. 12/- per lb.
USUAL WHOLESALE DISCOUNT. CAN BE OBTAINED FROM ALL WHOLESALE HOUSES.

THE FRENCH HYGIENIC SOCIETY OF LONDON, 6 CONDUIT STREET, LONDON, W.
REGENCY STREET,

BARCLAY & SONS, LIMITED

ESTABLISHED



OVER A CENTURY.

**PATENT MEDICINE DEALERS
AND PROPRIETORS.**

DRUGGISTS' SUNDRIES & SURGICAL INSTRUMENTS
MANUFACTURERS AND DEALERS.

EXPORT ORDERS Carefully and Promptly Executed. QUOTATIONS FURNISHED.
AGENCIES UNDERTAKEN ON THE MOST FAVOURABLE TERMS.

**SHOW ROOM AND WAREHOUSES—
95 FARRINGDON STREET, LONDON.**

JOHN SANGER & SONS

Patent Medicine Vendors,
DEALERS IN
DRUGGISTS' SUNDRIES,
LOZENGES,



Mineral Waters, Perfumery
And TOILET REQUISITES.

ILLUSTRATED PRICE LISTS SENT
FREE ON APPLICATION.

Sample Orders for Bronchitis Kettles, Chest Protectors, Hot Water Bottles, Respirators,
&c, &c, will receive prompt attention, and doubtless ensure further orders.

WRITE FOR OUR LIST OF WINTER SPECIALITIES.
Agencies of all kinds undertaken upon the most favourable terms.

Warehouse & Show Room: 489 OXFORD STREET, LONDON, W.

KEARSLEY'S Widow Welch's FEMALE PILLS.

These are universally acknowledged to be the Genuine, and Druggists may safely recommend them.

CAUTION!

The Proprietors of Kearsley's Original Widow Welch's Female Pills find it incumbent on them to caution the purchasers of these Pills against various imitations by parties who have no knowledge of their peculiar preparation, the Original Recipe having been sold to the late G. Kearsley, of Fleet Street, whose Widow found it necessary to make an affidavit, for the protection of her property, in the year 1798. The Genuine Recipe for Widow Welch's Female Pills has been prepared by them for 100 Years! Chemists are particularly requested to remark that, as a testimony of authenticity, each bill of directions contains an affidavit, and bears the signature of "C. KEARSLEY," in writing, also engraved on the Government Stamp, and each box is wrapped in WHITE paper.

Price 27s. per Dozen, subject to usual Discount. Special Quotations to Shippers and for large quantities on application to

J. SANGER & SONS, 489 OXFORD STREET, LONDON, W.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA.

Opposite the Julichs Place, COLOGNE,

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

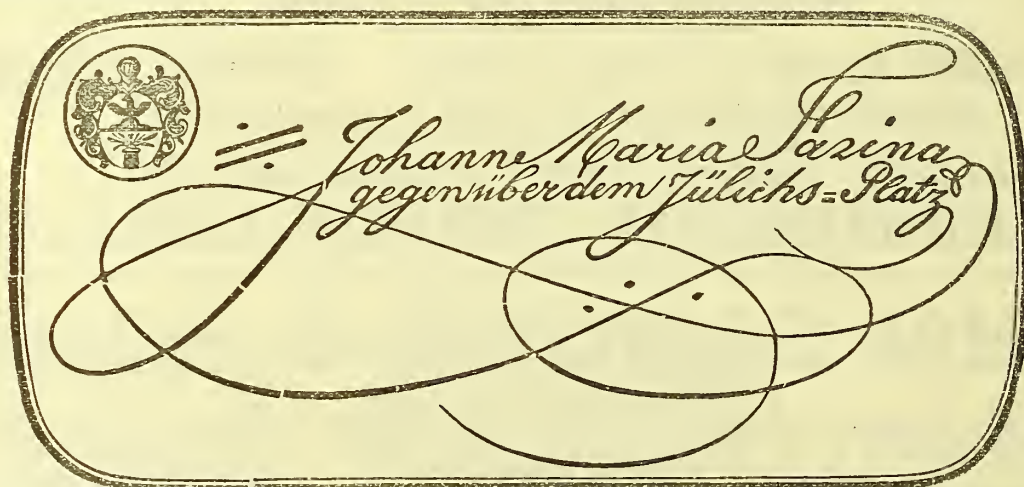
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; Albert II., King of Saxony;



Their Majesties, William II., German Emperor and King of Prussia; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 13s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCracken,
No. 38 Queen Street, Cannon Street, London, E.O.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	—	—	—	—	—	—	12 bottles	} to one dozen.
" 2. Short White Bottles	—	—	—	—	—	—	12 "	
" 3. Double ditto	—	—	—	—	—	—	6 "	
" 4. Wickered Bottles (small)	—	—	—	—	—	—	8 "	
" 5. ditto (medium)	—	—	—	—	—	—	4 "	
" 6. ditto (large)	—	—	—	—	—	—	2 "	

JOHANN MARIA FARINA

COLOGNE: January, 1889.

OPPOSITE THE JULICH'S PLACE.

SACHET POWDERS

The interest attaching to the increased demand for dry perfumes makes the subject just now of special importance. On account of the limited demand heretofore there has been no active competition in the manufacture of Sachet Powders. This fact will in a great measure account for the wide difference noticeable in the quality put out by different makers. The greater proportion of these powders contain only the ordinary showy filling of rose leaves, fragrant woods, buds and roots, which have little more life than dried autumn leaves when compared to a fragrant perfume. Can Sachet Powders be made to give as good satisfaction as the Extracts? Yes; if you know how to use them. Work boxes, handkerchief and glove cases may be lined with these powders, so as to give off their perfumes indefinitely. Kid gloves and dressed leather of all kinds may be more delightfully perfumed with Sachet Powders than with any of the liquid perfumes, and, too, without the risk of soiling. Sealskin, sable, and other fur may be given a delicate perfume with these powders. It often happens that the pelts of fine furs are not perfectly dressed, and in time acquire a peculiar odour, especially when subjected to dampness. Sachets, placed amongst such furs, will permanently improve and sweeten them. How many odours is it advisable to make? Not over a dozen. Why? Because the range of material is limited, and a few well-combined odours will meet the public demand even better than a long list, many of which are but reproductions of the same odour. Druggists should carry not less than six odours, in 8-ounce or 16-ounce glass-stoppered bottles, for supplying those who do fancy work, and others wanting them in bulk. Then a few dozen packets in satin, lettered in gilt, for placing in trunks and drawers. The six odours most popular are White Rose, Jockey Club, Violet, New Mown Hay, Heliotrope, and Frangipanni.

SATIN PACKETS, Lettered in Gilt 1.75 dollar per dozen

The following are put up in glass-stoppered bottles.—One ounce, in 2-ounce bottle, 4 dollars per dozen. Quarter pound, in 8-oz. bottle, 12 dollars per doz. Half pound, in 16-oz. bottle, 24 dollars per doz.

Catalogue and New Supplement sent on application.

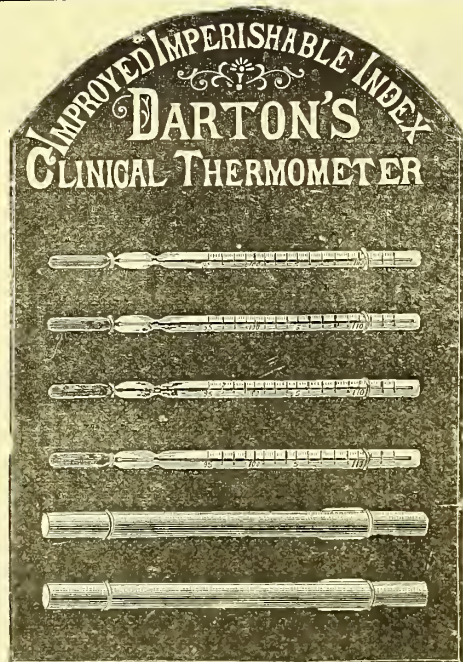
C. A. MANN & CO.

48 MURRAY STREET, NEW YORK.

PRIZE MEDAL, PARIS, 1889.



Facsimile of the $\frac{1}{4}$ -lb. Size.



For the convenience of Chemists who are introducing these Instruments, we are now mounting same on an attractive Showcard, chocolate ground, gilt edges and gold letters. Price per doz., including 1 Card, 30/-; ditto, lens front, magnifying, 68/-; Morocco Pocket Case, containing 1 Bent and 1 Straight Clinical, 7/6 the set. Kew Certificates to any of the above, 12/ doz. extra.

Special quotation for quantities.

CHEMISTS commencing the Spectacle business will find these Show Cases arranged with an assortment of Spectacles and Folders of all sights, to meet the requirements of purchasers. The quality and quantity may be varied to suit any class of trade at customer's wish. The Spectacle Show Case is of Solid Polished Mahogany, well made and finished, to stand any climate. Large Coloured Show Cards sent with each case, with descriptive pamphlet, &c.

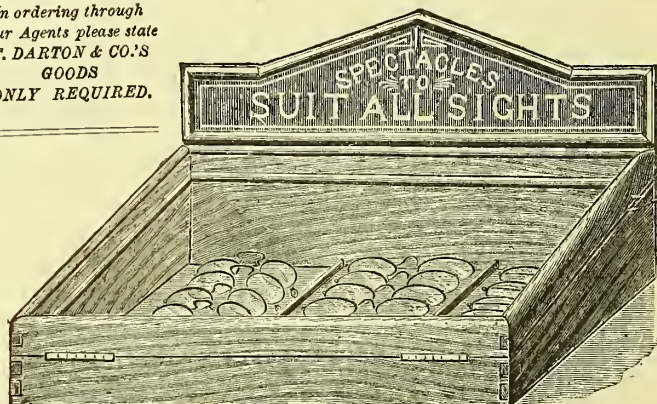
In ordering through your Agents please state
F. DARTON & CO.'S
GOODS
ONLY REQUIRED.

Send for F. DARTON & CO.'S
NEW PRICE LIST FOR 1888.

A FACT!

Darton's 2 Guinea Spectacle Show Case	realises	£4 11s.
Darton's 3 Guinea	ditto ditto ..	£7 5s.
" 6 "	ditto ditto ..	£15 12s.
" 10 "	ditto ditto ..	£26 15s.

* This case we strongly recommend for Export.



No. 1 Case, price £2 2s.; No. 2, £3 3s.; No. 3, £6 6s.; No. 4, £10 10s.; No. 5, £21

Send for fully Illustrated Catalogue and Descriptive Pamphlet, with Table of Sights, post free on receipt of trade card.

F. DARTON & CO.,
ESTABLISHED 1834.

WHOLESALE OPTICIANS
Makers to
Her Majesty's Government,

45 St. John St., West Smithfield, London, E.C.
Telegraphic Address—"EXCEPTIONAL LONDON."

CHEMICAL AND SCIENTIFIC APPARATUS. J. ORME & CO.

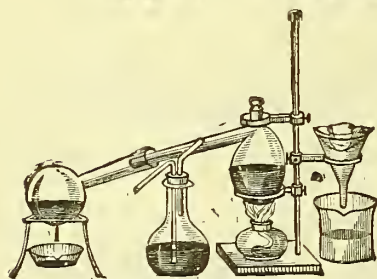
(Late M. JACKSON & CO.),

Manufacturers and Importers of every description
of Apparatus for Lecturers or Laboratory use.

By Appointment to H.M. Hon. Board of Inland Revenue, Science and
Art Department, Royal School of Mines, Trinity House,
Pharmaceutical Society, &c.

ILLUSTRATED PRICE LISTS ON APPLICATION.

65 BARBICAN. LONDON, E.C.



F. H. BERRY,

18 Percival St., Clerkenwell, LONDON, E.C.

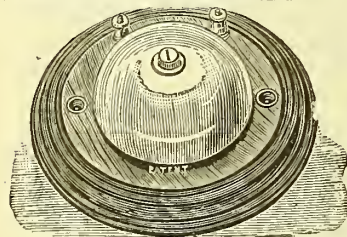
Wholesale Manufacturer of Electric Bells, Batteries,
Indicators, and Electric Apparatus of every description.
Specialities in Electric Wires and Cables for
all purposes.

SOLE MANUFACTURER OF

BERRY'S PATENT ELECTRIC BELL.

THE BEST AND CHEAPEST EVER PRODUCED.

Apply for Price List and Opinions of the Press. [2]



PATENTS, DESIGNS, TRADE - MARKS.

BERNHARD DUKES,

226 High Holborn,
LONDON, W.C.,

Undertakes all business relating to
PATENTS, DESIGNS AND TRADE-MARKS.

PLEASE MENTION THIS PAPER WHEN APPLYING.

ATTENDANCE IN THE PROVINCES.

S. MAW, SON & THOMPSON'S CHEST PROTECTORS AND VESTS

For Shielding the Lungs.



FIG. 3.
Double, for the Chest and Back.

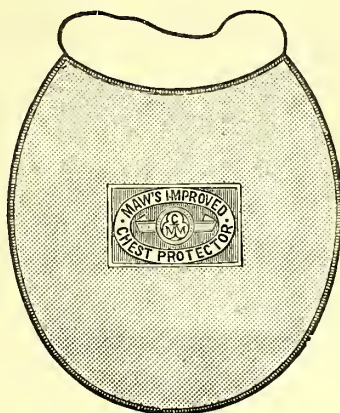


FIG. 4.
Single, Chest Protector.



FIG. 5.
Vest, a Shield for the Lungs.

CHAMOIS AND FLANNEL.

				No. 1	No. 2	No. 3	No. 4
Fig. 3.	Double	... ..	per doz.	20/	26/	32/	39/
	Ditto, perforated...	... ..	"	24/	32/	38/	46/
Fig. 4.	Single...	... ..	"	9/	11/6	13/6	16/
	Ditto, perforated...	... ..	"	11/	14/	16/	19/
Fig. 5.	Vests	"	"	27/	34/	42/	51/

FELT, ASSORTED SCARLET AND WHITE.

				No. 1	No. 2	No. 3	No. 4	No. 5
Fig. 3.	Double, best...	... ..	per doz.	17/	22/	27/	33/	44/
	Ditto, second	... ..	"	14/6	19/	23/	28/	37/
Fig. 4.	Single, best ...	... ..	"	7/6	9/6	11/	14/	20/
	Ditto, second	... ..	"	6/6	8/	9/6	12/	16/
Fig. 5.	Vests, Scarlet	... ..	"	17/	22/	27/	33/	40/

FELT, NATURAL UNDYED WOOL.

				No. 1	No. 2	No. 3	No. 4	No. 5
Fig. 3.	Double	... ..	per doz.	18/	24/	30/	36/	50/
Fig. 4.	Single...	... ..	"	8/	10/	12/	16/	22/

SPECIAL QUOTATIONS TO WHOLESALE BUYERS.

S. MAW, SON & THOMPSON, LONDON.

SPECIAL

SEND FOR SAMPLE GROSS.

**INDIARUBBER
POROUS PLAISTERS.**

SEND FOR SAMPLE GROSS.

**STRENGTHENING, BELLADONNA,
AND CAPSICUM.**

Manufactured by

WILLIAM MATHER.

Chemists are respectfully informed that by purchasing one gross of any of the above their own Names and Addresses may be printed upon the wrapper and back cloth of each plaister.

PRICE, INCLUSIVE OF PRINTING, **24/-** PER GROSS.

Subject to usual Discount, as per Price List.

W. MATHER.

MANUFACTORY:—

DYER STREET, HULME, MANCHESTER.

London Wholesale and Export Agents:—Messrs. MACE & HALDANE, 94 Milton Street, LONDON, E.C.

Skin Treatment.

"Lanoline" is a preparation of the purified fat obtained from lambs' wool. Being natural to the hair and skin, it is absorbed by these at once. It is the best basis known for ointments, salves, &c., and is perfectly miscible with water and all medicaments. We supply also an Anhydrous "Lanoline."

Of desirable consistence, it does not melt below body heat, and does not "run" like ordinary ointments. "Lanoline" has recently been much improved; it is much lighter in colour than formerly and free from odour. Being homogeneous and devoid of hard crystalline bodies and free fatty acids, it is bland, soothing and acceptable in the most irritable conditions of the skin. It is best to mix it with two parts of lard, oil, &c.

"Lanoline" Cold Cream.—Exquisite for the toilet. This is emollient, protective and soothing. "Lanoline" supplies the skin with a "cream" natural to it, and is highly regarded for abrasions, chapped hands, roughness, hardness, &c. It does not leave the skin glossy.

Softens and Soothes.

"Lanoline" Toilet Soap.—*The natural skin soap.* "Lanoline" Toilet Soap is made with "Lanoline." "Lanoline" being the natural fat of the skin, is held by many dermatologists to be the very best nutrient and preservative of this tissue, restoring its soft, pliable and elastic nature and healthy hue. It does not hurt the eyes or the most delicate skin.

"Lanoline" Pomade.—Hair anointed with this presents no shiny, greasy gloss, and does not stain or soil fabrics. "Lanoline" Pomade is quickly absorbed. It soon renders the hair smooth, silken, and strong, and after employing it a little time the scalp becomes perfectly healthy and free from dandruff. It is a natural hair tonic.

The fat in Lanoline Pomade is natural to the hair, and is very soon absorbed.

PREPARATIONS.—LANOLINE COLD CREAM; LANOLINE POMADE; LANOLINE TOILET SOAP; &c.
Lanoline supplied in 1-lb. and 7-lb. tins at 2s. 8d. per lb. Anhydrous Lanoline (Lanolinum Anhydricum), at 3s. 4d. per lb. Lanoline Ointment Base (Ung. Lanolini), 2s. 2d. per lb. Anhydrous Lanoline Base, 2s. 10d. per lb. Lanoline Cold Cream supplied in pots at 18s. per doz. Lanoline Hazeline Ointment, in pots at 18s. per doz. Lanoline Pomade, in pots at 18s. per doz. Lanoline Toilet Soap, 8s. per doz. Lano-Creolin, in tubes at 9s. per doz. Lanoline Eucalyptine Soap, 8s. per doz. Toilet Lanoline, in collapsible tubes at 4s. 6d. per doz.

BURROUGHS, WELLCOME & CO., Snow Hill Buildings, London, E.C.
Above Prices subject to usual Discount.

B. W. & CO.] Saccharin Tabloids. [B. W. & CO.

REDUCED PRICES.

B. W. & CO. Pure Saccharin Tabloids—

" In Beautiful Crystal Glass Oval Bottles, with White Metal
Caps, 100 in each... ..
" Ditto, ditto, 200 in each

Retail each.	Per doz.
9/9	7/6
1/6	14/

BEWARE OF SPURIOUS IMITATIONS.

ABOVE PRICES SUBJECT TO USUAL DISCOUNT.



BURROUGHS, WELLCOME & Co, Snow Hill Buildings, LONDON, E.C.

See Recommendatory Notice of Medical Press and Opinions of the leading Dermatologists.

WRIGHT'S

Detergens, acting for four hours, arrested future growth."

Of all Druggists, Wholesale
and Retail, throughout Great
Britain, Ireland, and Colonies.

From the *Lancet*, Dec. 22, 1886 :—"In our hands it has been
a most effective agent in skin diseases, especially of the chronic
eczematous class, and one class of psoriasis which had resisted
all other kinds of treatment speedily got well under the
application of the *Liquor Carbonis Detergens*. We esteem it a
very valuable addition to our list of skin remedies."

871 :—"We have tested it, and can affirm its value as a detergent agent. We consider the *Liquor* is an article of great utility."

Kept in stock and sold by all Druggists (Wholesale and Retail) throughout the United Kingdom
and Colonies. PROPRIETORS—

W. V. WRIGHT & CO., 48 Southwark Street, LONDON.

LIQUOR

CARBONIS

DETERGENS.

Extract from the Proceedings of the Royal Society of Edinburgh :—"Experiments
on the Chief Disinfectants of Commerce, with a view of ascertaining their power of destroying the spores of
the 'Anthrax Bacillus,' by a Medical Officer of Health and Public Analyst. A 10 per cent. solution of *Liquor*
Carbonis Detergens, acting for four hours, distinctly retarded growth of *Anthrax*, for the spores, whether in
gelatin-pork or in the broth, did not commence developing for 24 hours. Undiluted *Liquor 'Carboni*

The *Practitioner* of September, 1881 :—"Eczema connected with varicose
veins of the leg—also *Pruritus Scroti*, *Labiorum*, and *Ani*—is best relieved by
weak tarry lotions, one of the best of which is *Wright's Liquor Carbonis Detergens*."

P. McLEOD, Colonel R.A., Inspector-General of Ordnance, Ordnance Office
Madras, writes Sept. 10, 1887 :—"I can certify that 'Liquor Carbonis Detergens',
has cured me of a Psoriasis of 21 years, incurred in Burmah, after every effort
of such an able skin doctor as Sir Erasmus Wilson had failed."

From the *Medical Times and Gazette*
Jan. 19, 1867 :—"We have more than once
called attention to the value of this remedy
in chronic eczema."

From the *British Medical Journal*, Sept. 22



THE GREAT VEGETABLE BLOOD PURIFIER

SWIFT'S SPECIFIC

IS A REMEDY DISCOVERED BY INTUITION, AND FOUND, BY
EXPERIENCE, TO BE INVALUABLE. OBTAINED, MANY YEARS
SINCE, FROM THE GREEK INDIANS—ONE OF THE
SAVAGE TRIBES OF NORTH AMERICA—
ITS MERITS HAVE BECOME

KNOWN AND
APPRECIATED THROUGHOUT THE
CIVILIZED WORLD. ITS SUCCESS IN THE
TREATMENT OF ALL DISEASES THAT RESULT
FROM BLOOD TAIN OR BLOOD POISON HAS BEEN
UNPRECEDENTED, THOUSANDS WHO HAVE BEEN GIVEN UP AS
HOPELESSLY DISEASED, HAVING BEEN HEALED AND MADE HAPPY BY ITS HEALTH-GIVING PROPERTIES. IT
Cures Scrofula, Eczema, Rheumatism, Old Sores, Cancer, Catarrh, Contagious Blood Poison, &c
AND CONTAINS NO MERCURY, IODINE (F POTASH, ARSENIC, NOR ANY OTHER POISONOUS DRUG.

Books on Contagious Blood Poison, and on Blood and Skin Diseases, posted free.

THE SWIFT
SPECIFIC COMPANY 35 SNOW HILL LONDON. E.C.

MARION'S PHOTO SUPPLY WAREHOUSE.

MARION'S Britannia Plates.
MARION'S Instantaneous Plates.
MARION'S Chloride Transparency Plates.
MARION'S Bromide Opal Plates.
MARION'S Portrait Chloride Opals.
MARION'S French Mounts for Photographs.
MARION'S Albuminised and Ready Sensitised Papers.
MARION'S Bromide and Carbon Papers.
MARION'S Cameras and Lenses.

Agents for Voigtlander's Celebrated Lenses.

KRUGENER'S PATENT BOOK CAMERA.

Takes 24 photos; can be carried in the pocket. Price 65s.

MCKELLEN'S PATENT DETECTIVE CAMERA.

For plates $4\frac{1}{2} \times 3\frac{1}{2}$. The only Camera in which the exact image can be
seen on the screen at the moment of exposure. Price £8 8s.

MARION'S PHOTO OUTFITS.

From 21s. to £50.

EVERY REQUISITE FOR PHOTOGRAPHY.

22 & 23 SOHO SQUARE, LONDON, W.



ESTABLISHED 1859.

PRINCIPAL OFFICE, 42 CANNON STREET, LONDON, E.C.

BRANCH OFFICES:

MELBOURNE, SYDNEY, AND NEW YORK.

Published every Saturday.

Subscription 10s. per year, payable in advance; dating from the commencement of any month.

Supplied only to persons connected with the Trade.

Post free to every country in the world. Single copies 4d. each.

Cheques or Postal Orders should be payable to EDWARD HALSE, and crossed MARTIN & Co.

Supplied regularly to every member of the following Societies, who have adopted THE CHEMIST AND DRUGGIST as their official organ:—

The Pharmaceutical Society of New South Wales.

The Pharmaceutical Association of New Zealand.

The Pharmaceutical Society of Queensland.

The Pharmaceutical Society of South Australia.

The Hobart Chemists' Association.

The Launceston Pharmaceutical Association.

South African Pharmaceutical Association.

For Australasian subscribers the subsidiary journal, THE CHEMIST AND DRUGGIST OF AUSTRALASIA, is included.

Literary Contents.

PAGE	PAGE
Bankruptcy Reports	867
Canadian Notes	860
Commentary	865
Corner for Students	848
Correspondence:—	
The New Pharmacy Bill; The	
Sale of M-thylated Spirit;	
Tincture Residues; Sali-	
cyclic Acid, &c.	875
Keratin Pill-coating; Medi-	
cal English; Views on	
Sponge, &c.	876
Dispensing Notes	876
Miscellaneous Inquiries ..	877
Deaths	868
Deeds of Arrangement	868
Edinburgh Chemists' Assistants'	
and Apprentices' Association	857
Editorial Notes:—	
Irish Pharmacy	862
Official Standards for Con-	
centrated Infusions; Drug	
Auctions in Paris	863
Indian Gums	834
French Pharmaceutical News..	859
Gazette	868
General and Provincial News..	853
German Pharmaceutical News	859
Herbaria	853
Legal Reports	866
Liverpool Chemists' Association	854
Manchester Pharmaceutical As-	
sociation	855
Metropolitan Reports	849
Midland Counties Chemists'	
Association	856
New Companies	860
Our Town Traveller	869
Personalities	861
Pharmacy in India	859
Provincial Reports	850
Rivalries in the Petroleum	
Trade	861
Trade Notes	861
Trade Report	872

POST-CARD COMPETITION.

DECEMBER, 1889.

ALL subscribers have now, we hope, received THE CHEMISTS' AND DRUGGISTS' DIARY for 1890, and are spending a portion of their leisure time in admiring it. Those who care to enter this competition are invited to tell us on post-cards, and before December 31, which they consider in it

1. The most effective advertisement.
2. The most useful advertisement.
3. The most novel advertisement.
4. The best-looking page advertisement.
5. The best-looking $\frac{1}{2}$ -page advertisement.
6. The best-looking $\frac{1}{4}$ -page advertisement.

The one who nearest hits the general consensus of opinion will be entitled to one guinea. Employes of subscribers and their wives and families are at liberty to compete. Cards reaching us after the date fixed will be rigidly excluded. The questions can be answered from the numbers attached above.

OUR London offices will be closed on Wednesday and Thursday of next week. We shall be obliged if communications which require early attention be delivered not later than Tuesday forenoon.

THE next number of THE CHEMIST AND DRUGGIST will be posted on Friday, as usual, but not in all cases by the early provincial mails. Australian and Indian copies will go by the Friday's mails, as always. Advertisements for assistants, situations, and businesses for disposal will be inserted if received by Friday morning's post, but instructions respecting all other advertisements must reach us by Tuesday.

TRADE-MARKS APPLIED FOR.

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds of objection to the registration of any of the following marks may, at any time within one month of the date of this journal, give notice in duplicate, at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." All communications to be addressed to H. Reader Lack, Esq., Comptroller General, at the Patent Office, 25 Southampton Buildings, Chancery Lane, London, W.C.

From the "*Trade Marks Journal*," December 18, 1889.

Sketch of a lion on dark background; for chemical substances used in manufactures, &c. By Rabone Brothers & Company, 297 Broad Street, Birmingham. 91,880.

"O. B." in circular design; for sulphate of ammonia used in manufactures. By The Oakbank Oil Company (Limited), 39 St. Vincent Place, Glasgow. 93,112.

Landscape, with two sheep in foreground; for a cattle lotion. By Knud Sando, trading as K. Sando & Co., 52 Wool Exchange, Coleman Street, E.C. 80,783.

Design of lion and horse on shields; for chemical substances and goods in Class 2. By Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. 92,541.

"SANOXEN"; for goods contained in Class 2. By The "Sanogen" Ventilating Appliance Company (Limited), 28 North John Street, Liverpool. 92,639.

"VINCENTONIAN"; for chest-expanding braces, belts, surgical appliances, &c. By V. F. Wood, 29 Paternoster Square, E.C. 90,977.

"DIASTIN"; for chemical substances for use in medicine and pharmacy; and also for food substances. By P. Wilde, 23 Circus, Bath, and L. Gunn, Victoria Mills, Bath. 91,753-91,752.

"MORNING STAR"; for pills. By A. Griffith, 184 Old Lodge Road, Belfast. 92,148.

"RHIGONICES"; for a medicine for human use. By D. MacRitchie, 3 High Street, Inverness. 92,865.

"ZINGIT"; for a medicine for human use. By H. De Windt, 58 Jernyn Street, St. James, W. 93,214.

"GALLIA" and a sketch of a cock; for condensed or sterilised milk. By La Compagnie Générale des Laites Pures, 68 Fleet Street, E.C. 90,950.

"COFFEE STAND" on an article of that description; for food. By the Irish Temperance League, 16, 18, and 20 Lombard Street, Belfast. 91,952.

Design of a large "3," with wording and monogram; for condensed milk. By R. Lehmann, 79 Turnmill Street, London. 92,131.

"ÆSCULAP" and a man's head on black label with wording; for mineral water. By the Æsculap Bitter Water Company (Limited), 51 Farringdon Street, E.C. 90,802.

"SKULL AND CROSS-BONES BRAND" and sketch of skull and cross-bones; for candles, soap, oil, matches, &c. By Middleton, Kirkpatrick & Barr, 4 Cullum Street, E.C. 90,993.

CORNER FOR STUDENTS.

CONDUCTED BY RICHARD J. MOSS, F.C.S., F.I.C.

QUALITATIVE ANALYSIS.

A MIXTURE of two salts will again form the subject of the exercise in qualitative analysis. The mixture is to be submitted to a thorough systematic examination, the constituents of the mixture are to be detected, and all other substances proved absent. Students' reports should contain a concise account of the work done, and should include a list of the constituents detected, distinguishing any which may be regarded as accidental impurities.

Students' applications for portions of the mixture will be received up to the morning of next Saturday, December 28, and the samples will be forwarded immediately.

Students' reports will be received up to the morning of Saturday, January 11.

REPORTS.

The mixture distributed for analysis last month consisted of 9 parts of potassium chromate and 1 part of nickel sulphate. The calculated composition of this mixture is:—

Ni..	..	..	..	..	..	2.10
K ..	..	..	..	..	..	36.09
CrO ₄	..	..	..	..	..	53.91
SO ₄	..	..	..	..	..	3.42
H ₂ O	..	..	..	..	..	4.48
						<hr/> 100.00

Out of the thirty-seven students who sent in reports, twenty-nine failed to detect nickel, and seventeen failed to detect the sulphuric radicle. In the case of potassium there is but one failure to report, while all the competitors succeeded in detecting chromium, though a few omitted to observe that it was as a chromate that it occurred in the mixture.

The mixture when fresh had a yellow colour, and some specks of a bright green colour could be distinguished. These evidently constituted a very small part of the mixture; after a few days they changed colour and became brown. The powdered crystalline substance of a bright yellow colour, which was evidently the principal constituent of the mixture, bore a striking resemblance to potassium chromate, and probably very few of our correspondents failed to recognise this well-known salt almost immediately. The green or, as they were more frequently observed, brown specks were not so easily identified, but it was possible to obtain a good deal of information about them with very little expenditure of material. We shall briefly state what was actually done with a few little particles, just large enough to be distinctly visible to the naked eye. They were picked out with the aid of a lens, and freed from the adhering yellow powder by rubbing them on paper with the finger. Heated on platinum foil they intumescenced, thus showing the probable presence of water of crystallisation, and left a residue, which was of a dark green colour, almost black. This was evidently not carbon, for it did not burn away when further heated; the residue was probably an oxide. It dissolved in a borax bead in the outer blow-pipe flame, and the bead, when cold, was of a yellowish-brown colour. This reaction suggested nickel; it was cer-

tainly not cobalt. By way of confirmation, another of the brown specks was dissolved on a piece of porcelain in a drop of dilute hydrochloric acid; on adding ammonia, there was no precipitate or colouration; with ammonium sulphide there was a black precipitate. There could be very little doubt that the compound under examination was a salt of nickel, and a salt containing water of crystallisation. These experiments did not occupy many minutes, and the small quantity of the mixture of salts available for the analysis was not appreciably diminished.

In the course of the systematic analysis in the wet way the mixture was found to be only partially soluble in water, but readily soluble in dilute hydrochloric acid. This solution, which was of a deep reddish-yellow colour, became green on adding sulphuretted hydrogen in excess, sulphur separating at the same time. This reaction left no doubt as to the presence of a chromate. The filtrate gave with ammonia a greyish-green precipitate, which became nearly black on the addition of ammonium sulphide. The solution was filtered, and it was observed that the filtrate was slightly brown in colour—a further indication of the presence of nickel. On washing the precipitate and treating it with cold dilute hydrochloric acid, a black residue remained undissolved. By means of the usual tests this residue was readily proved to consist solely of nickel sulphide.

In a few cases our correspondents relied upon the separation of chromium from nickel by means of ammonia—a method which gave fallacious results. Solutions of nickel salts do not give a precipitate with excess of ammonia in the presence of ammonium salts, but in the present case the nickel was almost completely precipitated by ammonia, along with the chromium, in the form of hydrate. A similar result is known to take place in the precipitation of ferric hydrate by means of ammonia; small quantities of nickel, cobalt, manganese, or zinc may be carried down along with the ferric hydrate, and thus escape detection.

It is remarkable that so many students failed to detect the sulphuric radicle. The quantity in the mixture was small, but the reaction with barium chloride in the presence of free hydrochloric acid was highly characteristic, and ought not to have been overlooked.

PRIZES.

The First Prize for the best analysis has been awarded to
WALTER VERNON, Cleveland Dispensary, Linthorpe Road,
Middlesborough.

The Second Prize has been awarded to
E. TURTON, care of Mason & Radford, 10 Derby Road,
Nottingham.

Marks Awarded for Analyses:

Walter Vernon (1st prize)	..	90	Moyhitt	..	..	..	70
E. Turton (2nd prize)	..	88	W. L.	..	..	..	70
R. H. C.	..	86	Rubidia	..	..	..	70
J. Renrut	..	84	Gem	..	..	..	70
F. W. Towan	..	84	Farina	..	..	..	65
Ajax	..	82	Edinburgh	..	..	..	65
Saponis	..	82	Chrom. Anal.	..	..	..	65
A. Howard	..	80	Arthur Lazenby	..	..	..	65
A. W. Sikes	..	80	Thomas Guttridge	..	..	..	65
H. L. Stonham	..	80	H. G. Woodliffe	..	..	..	55
A. L. Doran	..	78	H. D. Aclif	..	..	..	55
Chisel	..	78	Edgar	..	..	..	55
J. T. Marston, Jun.	..	75	Ethyl	..	..	..	50
A. M. S.	..	75	W. H. Goy	..	..	..	50
W. H.	..	75	Fluorine	..	..	..	45
Undergrad.	..	75	Rad. Gent.	..	..	..	45
E. H. Newman	..	70	Kasak	..	..	..	40
Radix	..	70	Dexter	..	..	..	20
H. W. Colley	..	70					

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

. All communications should include the names and addresses of the writers.

W. VERNON.—Your work was well done, but your report was rather carelessly drawn up.

R. H. C.—You ought to have been able to extract a great deal more information from the preliminary examination. Remember that negative results are often very important.

J. RENBUT.—Your examination for the acidulous radicles was incomplete. You are required to prove the absence of all substances except those which you can show to be constituents of the mixture.

F. W. TOWAN.—A mixture of the composition you describe would have dissolved completely in water without the aid of an acid.

AJAX.—A simpler plan would have been to separate the chromic acid by means of lead acetate, and subsequently remove the lead in the usual way by means of sodium carbonate.

SAPONIS.—If the mixture had consisted simply of potassium chromate and potassium sulphate, of course it would have dissolved completely in water.

A. L. DORAN.—The red compound obtained by the action of sulphuric acid was chromic anhydride. On adding alcohol, aldehyde was evolved, and the green mass consisted of chromium sesquioxide. The trace of sulphate which you observed was of more importance than you thought.

UNDERGRAD.—If you had passed a sufficiency of sulphuretted hydrogen through the acid solution you would have found that the precipitate was white, or nearly white, suspended in a green solution.

RADIX.—Sulphuretted hydrogen could not possibly have been evolved, but chlorochromic anhydride may have been given off.

W. L.—Owing to the way your report is drawn up it is quite unintelligible. You ought to make it quite clear what solution each reagent is added to, and what is done with each filtrate and each precipitate.

RUBIDIA.—The potassium flame colouration would not have been so distinct had any notable quantity of sodium been present.

GEM.—If you had conducted the operations with greater care you would not have detected so many members of the group. The blow-pipe test ought to have been applied to the precipitate supposed to be due to manganese. You said nothing about the character of the precipitate produced by sodium phosphate; if it was not crystalline you may be sure it was not due to magnesium.

FARINA.—The detection of sulphuric acid in a hydrochloric-acid solution of the mixture presented no difficulty whatever; even in a dilute solution the precipitate was quite unmistakable.

CHROM. ANAL.—The precipitate which you obtained in the hydrochloric-acid solution of the mixture, on the addition of barium chloride, could not have consisted of barium chromate, as it is soluble in hydrochloric acid. It seemed to be yellow because it was in an intensely yellow liquid.

A. LAZENBY.—As we have pointed out above, the separation of nickel from chromium could not be effected satisfactorily in this case by means of ammonia; the nickel was almost completely precipitated along with the chromium hydrate. A very good separation was effected by treating the mixed precipitate consisting of chromium hydrate and nickel sulphide with dilute hydrochloric acid. The hydrochloric acid for this purpose should not be stronger than about 10 of acid to 5 of water, and it should be employed cold; if it is warmed there is great risk of dissolving nickel or cobalt sulphide. It is best to transfer the precipitate from the filter to a beaker by means of a jet of water from the wash-bottle; then add the dilute hydrochloric acid, stir the liquid for a few minutes, and filter if anything remains undissolved.

T. GUTTRIDGE.—The black precipitate which was to be examined for nickel and cobalt ought to have been tested in the borax bead. The cobalt reaction is very delicate and characteristic; in the absence of cobalt the nickel reaction is unmistakable.

H. G. WOODLIFFE.—Arsenic in any form ought to have been precipitated by sulphuretted hydrogen. You say that you added ammonium chloride, ammonia, and ammonium sulphide to a hydrochloric-acid solution of the mixture, and that no precipitate was produced. This is quite impossible.

H. D. KELL.—The precipitates to which you refer were due to the presence of a chromate.

EDGAR.—If you had used enough sulphuretted hydrogen the brown colouration would have disappeared, and a white, or nearly white, precipitate would have settled down in a bright green solution.

W. H. GOY.—The work which will answer your purpose best is Fresenius's "Qualitative Analysis," tenth edition.

FLUORINE.—The cobalt-nitrate test was quite valueless with a highly-coloured residue such as you had in this case. The test is one of very limited application, and requires a good deal of experience.

Metropolitan Reports.

THE WESTMINSTER COLLEGE PHARMACY CLUB gave its first concert at the Bridge House Hotel, London Bridge, on Wednesday evening. Notwithstanding the unfavourable night 150 members and friends were present.

CHEMICALS AND THE LONDON COUNTY COUNCIL.—At the meeting of the London County Council, which was held on Tuesday at the Guildhall, the Earl of Rosebery in the chair, a report was brought up by Mr. Arthur Arnold, as chairman of the Main Drainage Committee, in which it was stated that the Committee had received from the chemist his report, and that of Mr. Shoolbred, as to the experiments carried out by Mr. W. Webster at Crossness, on the electrical treatment of sewage, and they recommended that these reports be printed and distributed to the members of the Council, which was agreed to. The committee had received a report from the chemist as to the chemicals used during the past summer, from which they took the following extract:—"The quantities used at the Barking Outfall from 23rd May to 12th October were 1,313 tons of manganate, and 391 tons of sulphuric acid. At Crossness the quantities used from 23rd May to 6th October were 1,686 tons of manganate and 664 tons of sulphuric acid, whilst there were used at the Storm Overflows during the same period 187 tons of manganate and 40 tons of sulphuric acid, the total being 3,197 tons 1 cwt. 3 qrs. 6 lbs. manganate, and 1,036 tons 17 cwt. 2 qrs. 8 lbs. acid, at a cost of 25,305/7s." The report was adopted.

DISPENSERS' QUALIFICATIONS.—At the customary weekly meeting of the Islington Board of Guardians on Thursday, held at the Workhouse at Upper Holloway, Mr. Councillor Elliott in the chair, Mr. Broad asked the chairman, through the clerk, whether the dispensers in the service of the Guardians were qualified, and if so, what were their qualifications? The Clerk (Mr. E. Davey) said the two recently-appointed dispensers—Mr. Atkins and Mr. Jones—were members of the Pharmaceutical Society, but as to the third dispenser, he would have to make inquiries before he could give the information; but this gentleman had been a dispenser for 50 years, and prior to his appointment he was in business as a chemist.

The Chairman: If he is not qualified, it is rather late in the day to find it out and make complaint.

Mr. Broad denied that he had made any complaint, but he wished to point out that, should it turn out that they were employing unqualified dispensers, under a recent interpretation of the Pharmacy Act it might be made very uncomfortable for them.

The Clerk: When was the decision given?

Mr. Broad: About a month ago, and the case is now pending before the higher Courts.

A Member: Then it is not a decision yet.

The Clerk, having sent to make inquiries, said he could not answer the question without searching back through the records of former years, as to whether the third dispenser was a qualified chemist or not, but he would repeat that he had been a dispenser for fifty years, and the Local Government Board sanctioned the appointment. There was, he believed, a provision in the new Act for old chemists, and, whether this dispenser was qualified or not, he knew that before his appointment half a century ago, he was in business as a chemist.

Mr. Broad said there was a provision in the Act for the old chemists, but they must have registered themselves at the time the Act was passed; unless they did so then they were debarred from doing so now. [Mr. Broad is wrong in this.—EDITOR.] He had no personal feeling in the matter whatever, but under the decision he had referred to, he felt it important they should know whether all their dispensers were qualified under the Pharmacy Act or not. As a chemist himself, the decision had naturally engaged his attention.

The Clerk said he would make the necessary inquiries, and the matter then dropped.

THE ISLINGTON GUARDIANS AND THEIR DRUG CONTRACT.—On Thursday, at the ordinary weekly meeting of the Islington Board of Guardians, held at the Workhouse, St. John's Road, Upper Holloway, Mr. Councillor G. S. Elliott, chair-

man, presiding, a recommendation to continue the supply of drugs from Messrs. Herrings for another year provoked considerable discussion. Mr. Furlong (vice-chairman) moved that the contract with Messrs. Herrings be renewed. He was very strongly opposed to advertising, believing it to be an unnecessary expense. The Guardians had dealt with Messrs. Herrings for drugs for a very considerable period, and they had found their drugs to be superior to those they had had from other firms. In fact, the drugs they had had elsewhere had been found to be mouldy, rotten, and only fit to be thrown away.

An amendment that tenders be advertised for was negatived. Mr. Broad then moved a further amendment to the effect that six firms of druggists be written to, asking them to send in tenders. This was seconded by Mr. Goodman, and carried. A resolution was next moved providing that the samples sent in by the various firms should be examined by a committee of the dispensers and medical officers in the service of the guardians. Mr. Lambert was opposed to this, and moved an amendment that the samples be examined by a committee of the whole Board.

Mr. Stonelake: What is the good of that? We know nothing about drugs.

Mr. Lambert: There are several guardians who know a great deal about drugs, and I will alter my amendment so as to make the committee one consisting of six guardians instead of the whole Board. When you have a building matter in hand you refer it to a committee of guardians, and why not do the same with other matters?

The amendment was negatived.

The following firms were then suggested to be written to for tenders:—Messrs. Mackey & Co., Herrings & Co., Baiss Brothers, Barron, Harveys & Co., Hodgkinson & Co., Bush & Co., and Stevenson & Howell.

The Chairman pointed out that there were now seven names before the Board, and they had decided that the number to be written to should be limited to six. The names were then submitted in the order in which they are given above, and the number reduced to six by striking out Messrs. Bush & Co. The matter then dropped, it being agreed that the committee of doctors and dispensers should report the result of their examination to the Board.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor will much oblige.

BARNESLEY.

REFUSING TO SELL FOR ANALYSIS.—On Wednesday, at the Barnsley Court House, before Messrs. J. Kaye, H. Pigott, and Col. Neville, Joshua Willey, chemist, of Hoyland Nether, was charged under the Sale of Food and Drugs Act, 1879, with having on sale by retail a certain drug which he refused to supply to Inspector Turton, on December 10. Superintendent Kane explained that in accordance with a circular issued by the officer of health, Inspector Turton was sent to Hoyland Nether to defendant's shop with a prescription. It was handed to the defendant, made up, and handed back to the inspector, who told defendant that he wanted it for the purpose of having it analysed. The moment Mr. Willey heard what it was wanted for, he snatched the bottle out of the inspector's hand, and declined to give it back again. The prescription contained iodide potassium, chloroform, and water, and was for analysis. Inspector Turton then gave evidence. The defendant explained that he told the officer it was not made in accordance with the prescription, but it contained what was quite as good for medicinal purposes. He called William Roystone, his apprentice, who said he made up the prescription in accordance with Mr. Willey's instructions, and, having put a label on it, put it on the counter. The label was in accordance with the prescription. Mr. Willey took up the bottle from the counter. Witness never saw the bottle in the officer's hands. He left the shop before the bottle was taken up. Witness heard the officer say that he wanted it

for analysis, and Mr. Willey replied it would do equally well for medicinal purposes. Mr. Kaye said that the medical officer of the West Riding was taking action. There were so many things substituted one for another that it was time it was put a stop to. A fine of 40s. and costs was imposed.

BIRMINGHAM.

THE ALKALI TRADE.—Messrs. Chance Brothers, chemical manufacturers, of Oldbury, near Birmingham, have given notice that they will be obliged to close a portion of their furnaces and reduce the number of their men. This is owing to the high price of coal-slack, which has gone up nearly 50 per cent, and to the present condition of the chemical trade, which will not permit an advance in the selling price of soda and other chemicals.

CASES UNDER THE APOTHECARIES ACT.—As previously reported, the Apothecaries' Society have commenced proceedings against certain persons in Birmingham who were alleged to have been illegally acting as apothecaries by attending and advising patients and supplying them with medicine. The penalty claimed under each summons is 20*l*. Two penalties each were claimed from John Marston and C. F. Groom, who at the time of the alleged breaches of the Act practised in Great Charles Street as "Dr. Hunter & Co." Both these defendants had paid into court 87*l*. 8*s*. 3*d*., the amount of the penalties claimed against them, with costs. The cases which remained were two summonses against Jesse Key, of 97 Hill Street, trading as "Dr. Curtis & Co." and one against William Welch, of 19 Hurst Street, trading as "J. & W. May." These were set down for hearing on Monday last in the County Court, before Judge Chalmers, but when they were called Dr. Showell Rogers, who appeared for the Apothecaries' Society, applied for the adjournment of the cases, on the ground that the two material witnesses had been subpoenaed to attend that day at Warwick Assizes. As attendance at assizes took precedence over attendance at county courts, he presumed that the adjournment would be granted as a matter of course, and that the costs would be costs in the action. Mr. Stanbury Eardley, who represented Welch, objected to the adjournment, stating that his client was prepared to go on. This was a penal action, and the informants were entitled to half the penalties, and in those circumstances he thought that they were not entitled to any consideration. It was most improper that the informant should be a policeman. Dr. Showell Rogers replied that the police-officers were not entitled to a share of the penalties. The officers were not the informant; they were only witnesses. It appears that notice of the intended application for adjournment had been sent to the defendants on December 11, and his Honour said that gave ample time for witnesses to be warned not to attend. The cases were then adjourned to January 13. Another summons under the same Act against Alfred Brown, of Brunswick House, and Braithwaite Road, Sparkbrook, was heard. Mr. B. Weekes appeared for the Society of Apothecaries, and said defendant was a specimen of the class of illegal practitioners who, with no qualifications entitling them to act as medical men, opened a respectable-looking house, put up a speaking-tube and a night-bell, and placed their name on a lamp, making such outward show that the poor and ignorant mistook them for properly-qualified medical men. The defendant had signed a confession admitting that he was liable for the penalty, and had offered to pay by instalments of 1*l*. a month, but he (Mr. Weekes) was instructed that the defendant was in a good position, and able to pay forthwith. The defendant, who appeared in person, said he was unable to pay, and he was very poor. In reply to his Honour, the defendant said that the furniture in his house belonged to his wife. His Honour: I find that furniture in most defendants' houses in Birmingham does. (Laughter.) Mr. Weekes produced a photograph of the defendant's house, which defendant admitted was a correct one, and this showed a large and respectable-looking residence, with lamps and speaking-tube as described by Mr. Weekes. Defendant admitted, in answer to Mr. Weekes, that since the issue of the summons he had left the house and removed his furniture to another, which was taken in his wife's name. His Honour: The usual order is fourteen days. Mr. Weekes: I am instructed

to press for an immediate order; otherwise we have reason to suppose the defendant may again take steps to defeat the claim. His Honour: Very well; I will make the order for payment forthwith.

BRIGHTON.

CHEMISTS' BALL.—Some of the leading chemists in the town are thinking about holding a ball in aid of the benevolent fund. It will probably come off in February of next year. The prime movers are Mr. Marshall Leigh (chairman), Mr. Williamson (secretary), and Messrs. Histed, T. H. B. Long, Costerton, W. W. Savage, Thorne, and Shepherd.

BRISTOL.

AN Excise officer, well known for his vigilance in connection with the Medicine Stamp Acts, has this week made quite a raid upon upwards of a dozen chemists in Bristol and neighbourhood, and has succeeded in purchasing from every one unstamped specialities, about which they will doubtless hear more from Somerset House.

CARDIFF.

THE movement for the reform of the Pharmaceutical Council has extended to Cardiff; the local secretary, Mr. Alfred Coleman, having sent out a notice to chemists respecting the selection of candidates for the Council. The object, it is stated, is to support at the next election those who will pledge themselves to do their utmost to redress the grievances and improve the position of the retail chemist.

THE TOOTHACHE SPECIFIC CASE.—A fortnight since we reported particulars of proceedings before the Cardiff Police Court, in the case brought by the Inland Revenue authorities against Mr. C. F. Clarke, for the sale of a toothache specific which was made with methylated spirit. The case was adjourned while the magistrates considered how far the expression in the statute, "capable of being taken internally as a medicine," was applicable. They have now dismissed the case.

LIVERPOOL.

MR. ELLITHORNE, who owns a handsome pharmacy on the Cheshire side of the Mersey, and another in London Road, has added a third, which he is fitting in a very attractive style in Shaw Street.

SCHOOL OF PHARMACY.—Mr. Ward has taken new and excellent premises in a more central position, and hopes to have them fitted complete in time for the next course, which commences on January 6, 1890. We believe he intends to close his shop in Oxford Street, Abercromby Square.

PHARMACEUTICAL STUDENTS' SOCIETY.—The usual fortnightly meeting of the above Society was held on Dec. 12, the Vice-President, Mr. Johnson, in the chair. The President, Mr. Wyatt, read a paper on "The Dry Reactions of Simple Salts." As a substitute for blue glass in detecting the potassium flame, he recommended a solution of aniline violet made in the following way:—First make an ordinary solution of aniline violet, and then add sufficient methyl blue to give the desired tint, or, instead of the methyl blue, a solution of permanganate of potash may be used. A very satisfactory test for sulphonal was, he said, that of heating it with cyanide of potassium in a dry tube, a very characteristic odour, somewhat resembling garlic, being given off. Borax beads seldom gave good results, except with cobalt and nickel. It was almost impossible to get the amethyst tint, mentioned by Atfield and others as being produced by manganese. The paper was discussed until a late hour by Messrs. Shaw, Johnson, and Mitchell. Mr. Johnson recommended as a test for manganese to heat together three parts of sodium carbonate and one part of nitrate of potash, and to use it in the same manner as a borax bead, when the amethyst colour was well produced. A hearty vote of thanks was accorded to Mr. Wyatt for his paper, and also for his liberality in presenting the society with a substantial black-board. The next meeting will be held on January 9, 1890.

MANCHESTER.

THE INFLUENZA EPIDEMIC.—In hand-bills and in newspaper advertisements, many of our Manchester druggists have this week been engaged in proclaiming the merits of their specialities for the cure of influenza.

LIKE MASTER, LIKE MAN.—There is talk of the winding-up of the affairs of the Manchester Chemists' Assistants' Association. Last year, as in some previous years, the attendance at the meetings was meagre in the extreme. At least one paper had to go unread for want of a quorum. This year no meeting has been held. Unless the assistants themselves come to the rescue, the association will soon be numbered amongst the things that were.

RESPONSIBILITY FOR DISEASE.—At the Salford County Court on Tuesday, before Mr. H. H. West, Q.C., judge, a somewhat novel cause of action was raised by a young man named Cain, who sued his employers, Messrs. Boydell Bros., tailors, Market Street, Manchester, for damages, on the ground that he had taken typhoid fever in consequence, it was alleged, of an untrapped drain communicating with a sink which was in proximity with a speaking tube which plaintiff had to use. Defendants' solicitor argued that there was no case to go to a jury, but the judge ruled that there was a case. The jury returned a verdict for the plaintiff, and assessed the damages at 30/. The judge consented to stay execution pending appeal.

MIDDLESBOROUGH.

SALE OF IMPURE LARD.—On December 12, at the Middlesborough Police Court, Thomas Parry, grocer, was charged under the Sale of Food and Drugs Act with selling as pure lard a compound of mixed fats. Mr. Barnley, who prosecuted, said the defendant did not deny the sale, nor the result of the analysis, but produced a warranty to the effect that the lard was pure. The warranty, however, had been obtained since the institution of the proceedings. The lard in question contained 25 per cent. of cotton-seed oil and beef stearine. Messrs. Armour, besides selling a warranted pure lard, also sold a compound of the kind supplied by defendant. The defendant said he purchased the lard of Mr. Amos Hinton as pure lard. As soon as this matter occurred he asked Mr. Hinton for a warranty, and obtained the one produced. Mr. Hinton said he had supplied the defendant with Armour's pure lard. As soon as he heard of the case he had a sample of the lard supplied analysed, and it was found pure. The magistrates were of opinion that the lard sold was not the same as supplied by Mr. Hinton to the defendant, and fined him 50s., including costs.

NEWCASTLE-ON-TYNE.

ANOTHER DRUG STORE.—The two chief assistants of a well-known company store in the town are starting in opposition in the same thoroughfare, and the interesting feature of the new concern is that a lady is one of the active partners. The concern is started as a limited liability company under the name of Heatley, Janisch & Co. (Limited).

THE CHEMICAL TRADE.—Perhaps no locality in the kingdom is sharing so largely in the benefits of improved trade as the coal and iron districts of the North-East of England. No men are now idle, except those who will not work; and as the year draws to a close, and men look forward, the outlook is cheering for all except the chemical manufacturers. The low prices for the hitherto profitable "bleach" may sink many a firm whose long years of plucky fighting have won for them general admiration.

THE historic establishment of Alderman Dobson in the Side, a sketch of which was published in this journal on September 28, is about to be extinguished. It is probably the only chemist's shop which has been immortalised in the glass record of a cathedral memorial window, for in eulogising the virtues of its former proprietor the artist in glass showed the philanthropic pharmacist, with his pharmacy as a background. The present proprietor, desirous of giving up business, has tried to sell it as a going concern, but has not succeeded, and it is now the scene of the melancholy process of "selling off."

PHARMACEUTICAL EDUCATION.—The classes of the local association have met with better success this session than in the three previous sessions. Mr. Wright has a good class, and his excellent lectures on *materia medica* have evoked a more enthusiastic spirit in the students. Mr. Stuart's botany class has also gone on well, despite some ill-luck in the matter of interruption. The work of this class is now shared by Mr. Potter, the newly-appointed teacher of biology in the College of Science. In chemistry, too, students are fortunate, for it is rare that so comparatively small a class as pharmacy can furnish is able to secure such excellent tuition as that given by Professor Bedson and Mr. Shaw.

NOTTINGHAM.

NOTTS CHEMISTS' ASSOCIATION.—The annual dinner of this association was held at the Masonic Hall, on Friday, December 13. The President, Councillor Fitzhugh, J.P., occupied the chair. The usual toasts were honoured. Mr. J. S. Radford, in proposing "Continued success to the Pharmaceutical Society," said it was an institution which could not succeed in pleasing everybody. It had had a long and prosperous career, and was a society with which they were intimately connected. Mr. W. H. Parker (local secretary), in response, alluded in terms of regret to the indifference which the Society showed in regard to matters which were to the advantage of its members and the trade generally. Dr. C. Haydon White proposed "The Nottingham and Notts Chemists' Association," and the Chairman in reply observed that the Association generally was in a satisfactory condition. He had always desired to advance the interests of chemists, and that in one way might be done by attending to the wants of the younger members. He had been their President for many years, during which time the Association had helped to qualify many students for their profession. He had had a most harmonious committee to work with, and whilst they had such a committee and officers he was sure the Society would continue to flourish. Mr. C. A. Bolton, in proposing "The Professors and Teachers of Classes," alluded to the advantage derived from the classes held in connection with the University College. In coupling the name of Professor Clowes with the toast, he alluded to the earnest work done by that gentleman and Dr. White in connection with the association. Professor Clowes and Dr. White responded. Mr. Parker (Evans, Sons & Co., Liverpool) proposed "The Town and Trade of Nottingham," and Councillor J. Lees responded. The "Health of the Visitors" was given by the President, and replied to by Councillor F. Farrands. The "Health of the Chairman" was musically honoured, and the proceedings were enlivened by songs and recitations, given by Messrs. Casson (Tudor & Co., Hull), Bird, Davis, Hooke, Dennis, and Parr. Mr. Cockrem presided at the piano.

PLYMOUTH.

A CORONER ON PRESCRIBING CHEMISTS.—At an inquest held on Tuesday evening, at the Spread Eagle Inn, Treville Street, on the body of the child of a private in the Royal Marine Light Infantry, a midwife deposed to acting on Mr. Balkwill's advice to give deceased an injection of warm water and castor oil. The coroner commented strongly on the practice of chemists prescribing for the complaints of patients whom they had never seen. The jury returned a verdict of "Death from natural causes"—viz., convulsions.

IRELAND.

DR. WILLIAM BRADLEY, apothecary, Drogheda, is contesting the vacant coronership of Meath.

The death at Dalkey is notified of Mr. Thomas Finlay, dispensary officer of the Gweedore district.

DEATH.—The death is announced at Cavan of Mr. Francis McKenna, apothecary, L.A.H., at the age of 35.

The Dublin corporation have forwarded a subscription of 100*l.* to the funds of the Railway Rates Association.

SIR HENRY COCHRANE, chemist, Dublin, has been appointed deputy-chairman of the Corporate Committee.

MR. P. R. HAYES, a Tipperary druggist and general dealer, has been evicted from his holding for non-payment of rent.

The Dublin civic authorities are about to introduce into the city the provisions of the Infectious Diseases (Notification) Act, 1889.

SIR JAMES HASLETT, chemist and druggist, Belfast, has placed at the disposal of the corporate authorities a site for a new dispensary.

TENDERS.—Tenders for a year's supply of medicines, drugs, and medical appliances are invited by the Governors of the House of Industry Government Hospitals, Dublin, and by the Belfast Waterworks Commissioners (December 24).

LAST week, at the Dublin County Commission, John Neill was indicted for having wilfully smashed the plate-glass windows of Dr. Furlong's pharmacy, Kingstown, and for making a deliberate attempt to murder the proprietor, against whom he had a grudge. The prisoner pleaded guilty, and threw himself on the mercy of the court, and, having offered to replace the broken glass, was put back for sentence on the second count.

LIMERICK POISONING CASE.—SENTENCE OF DEATH.—On Saturday, December 14, at the Munster Assizes, Michael O'Brien, coachman, was charged with the murder of his father-in-law, John Manning, of Mungret, by poisoning him with arsenic. In Manning's body was found 23 grains of arsenic, and it was proved that O'Brien had unsuccessfully tried to get poison at the shop of Mr. Waugh, chemist, Limerick, and at several other chemists', representing falsely that he was still coachman to Dr. Murphy, and that he wanted it to poison a dog belonging to young Dr. Murphy. Three days before Manning's death he bought the arsenic, and after the death O'Brien showed great anxiety for a speedy funeral. He had two years ago effected a policy on Manning's life for 18*l.* with the Liver Friendly Society. Mr. R. J. Moss, analytical chemist, deposed that he had examined the stomach of the deceased and found 23 grains of arsenic in it. A tenth part of that would cause death. Judge Murphy sentenced O'Brien to death, and he will be executed on January 14.

SCOTLAND.

ABERDEEN.

POND'S DRUG STORES (LIMITED) have opened a shop in Holburn Street, under the management of Mr. James R. Mackenzie, from Messrs. Duncan, Flockhart & Co., Edinburgh. In their announcement they say, "Prescriptions dispensed at about half the usual price."

The Aberdeen Medico-Chirurgical Society celebrated its centenary on Saturday by holding a dinner in their hall in King Street. The chair was ably filled by the president, Professor Smith Shand. We are sorry to say Pharmacy was overlooked when the invitations were being issued.

CHEMISTS AND DRUGGISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—The fourth meeting of the eighth session of this association was held on Friday, December 13, when a lecture was delivered by Mr. Clark, pharmaceutical chemist, on "Volumetric Analysis," with experimental illustrations. Mr. Clark demonstrated with considerable success some easily attainable methods for the analysis of such articles as sodium hyposulphite, oxalic acid, liquor potassæ, ferrous sulphate, spirit of nitrous ether, &c. The next meeting, on December 27, will be a musical and social one; and a class for Minor students is to be commenced under the auspices of the association.

DUNDEE.

CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.—At the meeting on Thursday, December 12, the secretary read the committee's report on the apprentices' prize competition, the successful men being—Mr. Charles T. Duncan, first; Mr. Fred David, second; and Mr. James Fernie, third. Mr. Lindsay then read a paper on *Infusions*, in which he said that fresh infusions were almost unknown in many pharmacies. Speaking of concentrated infusions, he said

that infusion of calumba was one of the most difficult to make, but he had found that percolation was the method best suited for this. In concluding a very instructive paper, Mr. Lindsay advocated the boiling of the water for a short time before making the infusion, as in this way it kept better. In the discussion which followed some interesting experiences were given, but nothing strikingly new was brought out.

The next paper was on *Pill-coating*, by Mr. Isaac Hislop. After some introductory remarks, Mr. Hislop said that objections had been raised to silvering pill hydrarg., but he had found no difficulty. He added a little tragacanth to the mass in order to harden it, and after they were thoroughly dry, silvered in the same manner as any other pill. He then treated in turn the various methods of coating. For pearl-coating he used a solution of resin in sulphuric ether as a varnish (1 in 4); then he used ordinary mucilage of acacia to take on the French chalk. For gelatine-coating he used a solution composed of gelatine 1 oz., glycerine $\frac{1}{2}$ oz., and water 8 oz. For sugar-coating he quoted Dr. Symes's method (see "Art of Dispensing," page 82), which was all that could be desired. After an exchange of opinion on the merits of coated *versus* uncoated pills,

The Chairman called on Mr. T. C. Henderson to read the last paper, which was on improved formulae for two Pharmacopœia lotions. The notes on the first of these,

Lotio Hydrargyri Nigra,

arose from Mr. Heale's letter in this journal on November 30. In hospital practice this lotion is a stock one, and consequently the author had frequently observed the change mentioned by Mr. Heale. The cause of the change is oxidation of the mercurous oxide into mercuric oxide. Accepting this as correct, the point for us is to prevent this oxidation, if possible, and this can be effectually done by the introduction of a small quantity of glycerine, proceeding thus:—

Take of

Calomel	..	..	..	..	60 grs.
Glycerine	..	..	..	..	3j.
Lime water	..	..	..	..	q.s.

Rub up the calomel with the glycerine, and transfer to a bottle; add 4 oz. of lime water and shake well, then add sufficient lime water to produce 1 pint.

Made in this way the black oxide is in a much finer state of division, shakes up more readily, and keeps any length of time without change, while the product is more elegant in appearance than the B.P. preparation. For those who use large quantities of this, the calomel and glycerine may be kept readily mixed (3j. of calomel in 3j. of glycerine), and the requisite quantity taken, and lime water added as required.

Lotio Plumbi c. Opio.

Although not yet official, this is a lotion which is largely prescribed, and many formulae for its preparation are followed. In the Dundee Hospital Pharmacopœia the formula given is:—

Liq. plumbi subacet.	..	..	..	..	3j.
Tinct. opii	..	..	..	..	3j.
Aque ad	..	..	..	..	3xx.

Made according to that formula the product has a muddy appearance, is of a dirty brownish-grey colour, and soon separates, thickly coating the sides of the bottle in which it is dispensed. After several attempts to improve the appearance of this, the author selected the following:—

Liq. plumbi subacet.	..	..	..	..	3j.
Glycerini	..	..	..	..	3j.
Tinct. opii	..	..	..	..	3j.
Aque ad	..	..	..	..	3xx.

Dilute the tincture of opium with 15 or 16 oz. of water. Mix the lead and glycerine together, add these, and finally make up to 20 oz. with water.

The result of this modification is a quite transparent lotion, which does not separate, and is certainly much more presentable than the former, and thus should find favour in the eyes of all who advocate elegance in dispensing.

After a short discussion and some announcements, the association adjourned until January 16, 1890.

EDINBURGH.

THE Scottish Drug Depôt have made extensive alterations on Furlay's old shop at Tollcross. The front has been taken out and a new one with four handsome plate-glass windows has taken its place. The door now faces Earl Grey Street, and will be open to the public next week.

THE Chemists' Assistants' conversazione came off on Friday, December 13, and was an unqualified success. Conversazione is rather a good name for the assistants' social meeting. It enables them to speak of the festival with easy confidence in the strictest circles, where "junior ball" might be scarcely tolerated. A correspondent who sends us some account of the proceedings seems to be rather mixed in his views as to the department of the paper for which he is writing. He says:—"Ladies averaged 15 to 17 per cent. premium at the conversazione. The market was active but fluctuating throughout the evening. Business began in earnest with the distribution of the dance programmes, although many private transactions of limited extent had been concluded during the previous two hours of the concert. So rapid were the registrations that it may be said the market was almost cleared when No. 3 was put up. Job lots were few, and when, under the influence of the seductive strains of the 'Dorothy' waltz (No. 6) the groups of anxious outsiders seemed to be goaded almost to desperation, a dollar a dance is known to have been offered and refused by fortunate holders. About this time quotations may be said to have reached their maximum, and it was freely stated that a 'corner' was inevitable, when the stewards, with commendable foresight, declared for two 'extras.' Immediately on the card being put up quotations were reduced from about 140 to par, and the late comers and slow ones had a good time for the next twenty minutes. The market hardened on the resumption of the second part of the programme, and although inquiries were constant and offers tempting, all good lots were firmly held. The market closed firm and was a success, if we may judge by the look of satisfaction with which the fortunate ones removed the goods."

General and Provincial News.

THE aniline trade in Germany is particularly brisk just at present. The large firm of the Farbwerke, vorm. Meister, Lucius & Brüning, in Höchst-on-Main, are erecting a new sulphuric-acid chamber to satisfy their increased requirements. When this chamber is ready the works will turn out 100 tons of sulphuric acid daily.

CARBOLIC-ACID POISONING.—On December 11 at Alnwick an inquest was held on the body of Richard Embleton, 50, a tobacco-spinner, who had committed suicide the previous day by taking carbolie acid. Sums of money amounting to about 32l. 10s. had been stolen from the deceased, and this, it is thought, had preyed upon his mind. The jury gave a verdict of "Suicide when in an unsound state of mind."

A LARGE works for the manufacture of soda is being erected in the Government of Jekaterinoslav, in Southern Russia. The output is estimated at 1,000,000 poods, or about 16,000 tons per annum. The extensive salt-deposits in the vicinity of the factories are now being worked by a French company, who are under contract to supply the necessary salt to the new factory.

FIRES.—On the evening of December 14 a fire broke out at the oil stores of Mr. Berridge, chemist, Leicester, which are situated in a narrow street near the market place. A large crowd gathered, and for some time great excitement prevailed owing to the inflammable nature of the stores.—On December 16 a serious fire entirely destroyed the Albion Chemical Works, Coatbridge, belonging to Messrs. A. S. Fleming & Co., oil refiners. The fire was caused through a large cauldron containing varnish boiling over and the contents coming in contact with some red-hot cinders. Mr. Fleming, the manager, who was superintending the preparation of the varnish, was severely burned. It is estimated the damage done to Messrs. Fleming will amount to over 1,000l.

LIVERPOOL CHEMISTS' ASSOCIATION.

At the meeting held on December 12, Mr. A. H. Samuel, president, in the chair, there was but a small attendance, partly due to the fact that the Pharmaceutical Students' Society met on the same evening, and some few persons are members of both associations. Dr. Symes exhibited a specimen of

SYNTHETIC PURE PHENOL, OR ARTIFICIAL CARBOLIC ACID,

which, he said, was being manufactured and put on the market by the Badische-Anilin- und Soda-Fabrik at Ludwigs-hafen-on-the-Rhine. That it was really pure was shown to some extent by its high melting-point—viz., 106° to 107° F.—whilst the ordinary so-called pure acid melted at about 102° F. Its boiling-point is 302° F. It is free from the usual tarry odour, and dissolves to the extent of 1 in 12 of water. He could not say if its antiseptic properties were equal to those of the ordinary acid, and at present the price was somewhat higher. The sample, which had been exposed to the light and occasionally to the air for two or three weeks, was not so perfectly colourless as when first imported. This was interesting, as he did not think it had yet been definitely settled as to the cause of pure carbollic acid becoming coloured. The process of its manufacture was secret.

Mr. A. C. ABRAHAM regarded the specimen as practically colourless. He thought it had been definitely settled that the pink colour of carbollic acid was due to the presence of copper, it being always evaporated in copper vessels.

Mr. CONROY remarked on the somewhat acetic odour of the specimen. He thought it of considerable interest; but there was always a certain amount of doubt in one's mind about the synthetic production of such things so long as the process was secret.

Dr. SYMES, replying, said copper, ammonia, and some other substances had been credited with being the cause of pinkness in carbollic acid, but he did not look on the point as definitely settled. He would like to direct the attention of the meeting to a specimen of *phenyl-urethan* which he had placed on the table. It was a new remedy recommended by Dr. Giacomini, of Turin, as an antipyretic, anti-rheumatic, &c., the medium dose of this substance being 8 grains, either suspended or in catchets, as it is almost insoluble in water.

A paper was then read on

CONCENTRATED INFUSION OF SENEGA.

By Anthony S. Buck.

The object of this paper was to bring under the notice of the members a simple way for making this preparation. The author said that the rule in all first-class pharmacies is to have infusion of senega and other infusions and decoctions freshly prepared. During the day this may generally be done with ease, though occasionally the patient may not be able to grant the time necessary for its production. At night there is greater difficulty in adhering to the rule, and hence the need for having at hand an article which will keep well and be as nearly as possible equivalent to what is ordered. Medical men are now ordering concentrated infusions as component parts of mixtures. Only last week the author had 5x. inf. seneg. conc. ordered in a 6-oz. mixture. His attention was first drawn to the concentrated preparation during an engagement where the law was 1—7, and, he supposed, almost every medical man who dispenses his own prescriptions, and perhaps four-fifths of the chemists, make their infusions in the same way.

The commercial preparation to which he referred was dark coloured, and produced an infusion darker than it should have been. It had little or none of the aroma of senega, and the acid or soapy taste was wanting. In fact the impression conveyed to his mind was that the root had not been used in its production, and that from prunes as good results would have been obtained.

The sample he brought forward seemed to have all the requirements of a good aqueous solution, viz., the colour was not too deep, the aroma was perfect, the taste fully bore out these statements, and though the appearance was not quite

so elegant as that of some of the bought samples, he thought it would justify itself on dilution, as the heavy deposit of saponin did not matter much. The process employed in making the preparation was the percolation and repercolation process with cold water, mentioned in *THE CHEMIST AND DRUGGIST* some time since, and a simple apparatus was shown to illustrate the proceeding. The percolators are penny lamp-glasses which answer very well, the stand being made for the purpose. These glasses and the stand are most useful on the dispensing counter—in fact, there are few days when they are not put to some use. The quantity of water used is little in excess of the volume of product, no evaporation or heat is required, and to these reasons Mr. Buck put down the light colour and better aroma.

In making, say, 1 pint of product, 8 oz. of the root is taken and ground to a uniform coarse powder, and distributed through five glasses. This seems to be the lowest number which can be employed for the thorough exhaustion of senega by this process. Into Number 1 we put, say, 3 oz. of distilled water. Any percolate is passed into No. 2, more water being added to No. 1, and so on until $16\frac{1}{2}$ oz. is collected from No. 5. By this time the water is passing through the marc without taste and almost colourless, the marc itself being tasteless. To the $16\frac{1}{2}$ oz., $3\frac{1}{2}$ oz. of S.V.R. is added. A precipitate is immediately thrown down, and this deposit goes on increasing for some days. Of this solid matter the author takes no notice, as he finds that upon dilution, and on the addition of only a small quantity of ammonia, a very elegant mixture is produced. The saponin, which appears to be present in such large quantities, is not noticeable when the concentrated infusion is simply diluted and without any addition.

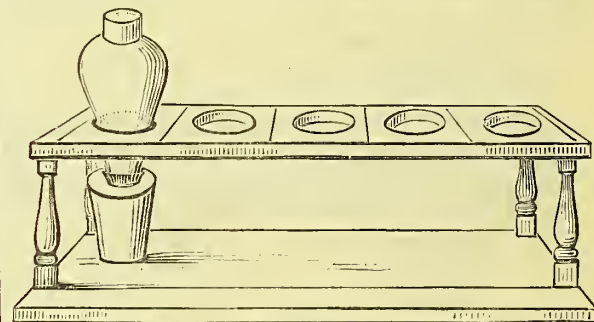
The author showed three samples to prove his case as to the value of an infusion made in this way. One hundred cubic centimetres each of fresh infusion, fresh decoction, infusion from this process, and infusion from a bought preparation were evaporated to dryness, with the following results:—

Fresh infusion ..	100 c.c. = 1.03 grammes powdered extract
„ decoction ..	100 c.c. = .79 „ „ „
This process infusion	100 c.c. = 1.23 „ „ „
Bought conc. „	100 c.c. = .645 „ „ „

These results tend to show the advantage of the cold-water process. No. 4 was received into stock bright, and Mr. Buck presumed it must have been poured off or filtered to account for this low percentage.

The dried marcs from 1, 2, and 3 were treated with proof spirit in the B.P. tincture proportions. The small tinctures were filtered, and portions evaporated to dryness. The tinctures were practically without taste or colour, and the residues very small.

From the dried extracts of the first, second, and third aqueous preparations the author prepared a powder on the lines of the U.S. Pharmacopœia Abstracts, the strength being 4 root = 1 powder. The abstract was satisfactory in aroma and taste, and might be of service where it is desired



This is an engraving of the stand referred to in Mr. Buck's paper. The fabric which covers the outlet of the percolator is fixed by means of white gutta-percha. The percolators are constantly in use at the dispensing-counter as strainers.

to give senega in powder form. When made on a large scale, this powder could be produced more cheaply from the tincture.

Now that concentrated infusions are so much used, it is

time they had some official recognition either in the B.P. or B.P.C. Formulary, so that chemists who wish to make their own preparations could have some definite lines to work on, instead of each operator using his own process, and with such different results.

The specimen which Mr. Buck showed was turbid, but possessed the well-marked odour and taste of the drug, and when diluted resembled very closely the fresh infusion.

Mr. CONROY, in moving a vote of thanks, remarked on the neat and useful "lamp-glass percolator" which was shown, and said this was Mr. Buck's maiden paper—an excellent one—and he trusted the association would get many more from him. He thought a fluid extract the best preparation.

Mr. A. C. ABRAHAM asked Mr. Buck if he had satisfied himself as to having exhausted the senega by treating it in the way described. He had prepared some concentrated infusion by simple percolation, using as a menstruum a mixture of 1 part spirit and 3 of water, and he found it about double strength—in fact, to get a preparation which, when diluted in proper proportions, fairly represented the infusion, he had to use only half the quantity of senega.

Mr. BUCK, replying, said by his process exhaustion was complete. He thought wholesale houses should not send out concentrated infusions of senega bright, the turbid preparation being much better.

A unanimous vote of thanks was passed to Mr. Buck for his paper.

Mr. A. C. Abraham next read his

NOTES ON SOME OF THE PAPERS READ AT THE LAST MEETING OF THE BRITISH PHARMACEUTICAL CONFERENCE.

Tincture of Senna.—He supported Mr. Proctor's view concerning this, and thought it unfortunate that such a preparation should be retained in the Pharmacopœia, whilst many useful preparations were omitted. Its use in mist. sennæ co. was wasteful; it merely represented the amount of spirit which it contained.

Papain and Pepsin.—Mr. Abraham thought Mr. Ball's criticism of the Pharmacopœia test for pepsin was uncalled for. It was a very satisfactory test, and he thought a pepsin which responded to it should be regarded as a good commercial article. He was rather surprised that no one more strongly put forward this claim during the discussion which followed Mr. Ball's paper.

Are Glass Bottles Soluble?—It was, he said, well known that some chemicals acted on glass, but he had not experimented on smooth surfaces. He found that a solution of phenolphthalein was coloured pink by a ground-glass stopper.

Extract of Stramonium.—Mr. Abraham confirmed Mr. Gerrard's views as to the uselessness of extracting the seeds with ether previous to exhaustion. He hoped to see an improved process in the next edition of the Pharmacopœia.

Scale of Small Residues.—In the directions given for exhausting drugs it was often required that percolation should be continued so long as anything was dissolved, and this meant a long process and a large quantity of fluid to be evaporated. At the same time, the amount of active matter obtained after a certain point had been reached was practically nil. Would it not be better (he asked) to have a standard of colour or weight of residue on evaporating a small quantity, so as to determine the point at which to finish the process?

Lemon Juice.—The author thought that some amount of difference in citricity depended on whether the lemons were peeled before pressing or merely cut in two unpeeled. This was a point worth attention, as, no doubt, the outer and inner portion of the same fruit differed in acidity.

Mr. Abraham said he should have dealt with some of the other papers had the time at his disposal permitted him to do so.

In supporting a vote of thanks, Mr. Conroy referred to the difference of opinion between himself and Mr. Williams on this matter, and said he felt assured that if this gentleman continued his investigations he would come to the same conclusions as himself.

The PRESIDENT then delivered a short valedictory address, in which he referred to some of the advantages which had been gained by the amalgamation of the two associations. He considered that the fact of their dealing with the science

of pharmacy in no way militated against their considering and dealing with matters of trade interest. In relinquishing the presidency, he in no way lost interest in the association, which he should always be pleased to support to the best of his ability.

MANCHESTER PHARMACEUTICAL ASSOCIATION.

THE monthly meeting of this Association was held on December 11, Mr. W. Wilkinson, one of the vice-presidents, in the chair. The attendance, although not very large, was larger than usual. A number of new members were elected. Mr. H. Kemp read a paper on

The Association and its Future Programme.

He said he felt convinced the society was not what it ought to be—that was to say, a society representative of the legitimate drug trade in that populous district. Other trades and professions had organisations which were for the most part active, and which did not merely *exist*, and it was because he saw no reason why the same should not be said of their own association that he desired to bring this subject under notice. In order to ascertain the best lines on which to conduct the association in the future, it was necessary to take a glance at the past history of the association. When the Pharmacy Act of 1868 became law the leading spirits of the trade in Manchester, in common with those of other large centres, such as Liverpool, Birmingham, and Sheffield, thought it only right that a society should be formed to look after the trade's interests and promote measures for the education of rising pharmacists. A preliminary meeting was called, and the Manchester Chemists and Druggists' Association was launched into existence with much *éclat*. He believed it included among its first subscribing members nearly the whole of the men of "light and leading" amongst local pharmacists. After tracing the course of this association to its practical extinction, Mr. Kemp said the visit of the British Pharmaceutical Conference to the City in 1886 roused a great amount of interest in matters pharmaceutical. The chemists of the city—or at least the more intelligent of them—did what they could to make the visit a memorable success. It was their association which took the initiative in collecting the forces on that occasion, and the work that was done showed that while the association was dormant it needed only a stimulus to re-awaken it into life and vigour. The Conference over, the interest exhibited by local chemists in their brethren of the pestle seemed to subside, and the association became once more what it was still—a small band of subscribing members, within whose narrow limits might be found a still smaller band of active members anxiously working to maintain vitality, whilst others stood outside waiting for some fresh, startling event to turn up which would bring excitement into the ranks of the trade generally, assailing their trade interests, and causing them to seek safety in combination. For people to wait till a panic stirred their fears was not exhibiting a noble spirit, and he heartily wished that an increasingly large number of the members of the trade would see the wisdom of giving their counsel now, instead of waiting till self-interest prompted their action. Their second rule, as lately revised, gave the objects of the society as "the promotion of pharmacy" and "the protection of legitimate trade interests," and to further these laudable objects there must exist good fellowship and good feeling among the members of the trade. When they considered how those engaged in the trade were badgered about between stupid Excise regulations on the one side, new and previously unthought-of readings of old Acts of Parliament on another, and illegal opposition on yet another, they must see that this unsatisfactory state of things was, in a great measure, the result of a want of unity. If half the chemists and druggists of the district were members of their association, and they could discuss and agree upon a policy, they were sufficient in numbers to very materially affect the result of an election to the Pharmaceutical Council, and so exert a distinct influence upon the policy of that body. Their apathy had left them without representation on the Council. The gentleman who sat upon that Council to take care of the interests of pharmacy in that immense district was allowed

to retire without a finger being lifted to prevent him or to appoint a successor until it was too late. Practically they had allowed themselves to be disfranchised. In conversation with some who were usually absentees, reasons were offered for want of interest in the society. One said, "I prefer to read science at home; the trade wants matters of trade interest." Another said, "You should make your meetings more social, less formal in character." Another, who evidently looked to receive value for his money, asked, "What good will it do me to join?" To such his answer was, "See how much good you may do others." Yet another—worse than all—said, "I don't care to bow to a clique." This last observation contained an insinuation as unkind as it was untrue, and he only mentioned it to refute it. No member of the society had more power or weight than another, if the other liked to exercise it. Trade subjects might be introduced, sociability cultivated, and by bringing individuals into contact with each other all would be benefited, and thus ultimately the good of pharmacy would be promoted.

Mr. W. Elborne, Mr. W. Lane, Mr. Botham, Mr. J. Wheeldon, Mr. Pratt, Mr. Wild, Mr. Smith, and others, joined in the discussion which followed. All the speakers concurred with the reader of the paper in deploring the lack of interest in the society's work, and expressed approval of his suggestion that something might be done in the way of introducing variety into the proceedings, especially as the recent smoking concert had resulted in an addition to the membership of the society and an improved attendance at the present meeting. A committee was appointed to make arrangements for a supper, smoking concert, or some other form of social meeting. A suggestion was made that the hour of meeting (half-past seven) should be altered, but the chairman said afternoon meetings had already been tried without success, and he did not think it was necessary to meet later in the evening, seeing that the earlier closing of shops was now very general. ("Question.") His experience certainly was that shops were not kept open as late as they used to be. Mr. Botham: I think they have no need to be; it is our own fault if they are. The suggestion to change the hour of meeting was not acted upon. A vote of thanks was accorded to Mr. Kemp for his paper.

THE UNQUALIFIED ASSISTANT QUESTION.

In reply to a question by Mr. J. Wheeldon, the father of the young man who was recently prosecuted, it was stated that the question of the recent prosecution of an unqualified assistant had been left off the agenda, as it was thought that the matter was one which should be discussed not merely by the association, but by the whole trade of the city and district, and the time available for calling such a meeting was too short. Besides, said Mr. Kemp, as the appeal had been lodged and the question was now *sub judice*, it was questionable whether it would be politic to discuss the matter at all. Mr. Wheeldon said it was not too late for Manchester to call a meeting on the subject and raise subscriptions, as had been done by local associations in other towns. The appeal was lodged in the belief that Manchester and the other towns would be disposed to bear their share of the cost. According to the last information he had, the subscriptions did not amount to half the sum which had been expected. Some conversation followed, with the result that it was suggested to Mr. Wheeldon that, if he still thought it desirable, he should take steps with the view of getting the members of the trade in Manchester and the district called together to deal with the matter.

AH LI, by birth a Chinaman, by profession a dentist, has set foot on American soil and practises on his suffering countrymen in New York. His methods are somewhat primitive: but he is popular. His operating chair is a common camp-stool, and there is a smaller stool of the same height for the foot of the dentist to rest on. The head of the patient is occasionally brought upon Ah Li's elevated knee, and upon his right hand is his operating case containing curious and quaint instruments. The rapidity with which Ah Li extracts a decayed tooth is astonishing. A certain liquid preparation of a whitish nature is first put upon the doomed tooth to deaden the pain and to "loosen the root." The filling of the cavities is accomplished with great rapidity with a substance like tinfoil.

MIDLAND COUNTIES' CHEMISTS' ASSOCIATION.

A SUPPER in connection with this Association was held at the Midland Hotel, Birmingham, on Wednesday evening. The chair was occupied by Mr. W. F. Wyley (President of the Association), and the company included Messrs. A. Southall, Perry, Jones, Arblaster, Spencer, Richards, Prosser, Turvey, Williams, Campion, Chapman, Kneale, Millward, Thonger, Brunt, Crooke, Watkins, Willday, Corfield, Ferriday, Grice, Nicholson, Morris, Fletcher (Coventry), Seampton, Clay, Smallman, Sturdy, F. Gibson, Lovegrove, Phillips, Fildes (Manchester), W. Southall, How, Boucher, Magor, Childs, Myles, J. Balkwell, Hayes, Place, Morris (Walsall), and Alcock and Thompson (hon. secretaries). The toast of "The Queen" having been honoured, Mr. Perry proposed "The Pharmaceutical Society," which, as the representative society of the pharmacists of Great Britain, was entitled, he thought, to receive the hearty support of every loyal pharmacist, especially at the present juncture, seeing that it had under its consideration, or the Council had under its consideration, the drafting of a new Pharmacy Bill. (Hear, hear.) He hoped that that Bill would embody all they could have conceived and wished for in their most sanguine moments. (Applause.) He coupled with the toast the name of Mr. Alfred Southall.

Mr. SOUTHALL, in response, said it was not always a very pleasant position to represent a society which was not altogether in harmony with the trade; but he thought they could hardly expect the Pharmaceutical Society to be so. They must remember that one of the duties of that Society was not only to protect chemists, but also to protect the public. (Hear, hear.) He thought pharmacists were a little inclined to forget that that was one of the Society's duties. He wished to remind them that in the Bill they were promoting they were going in for the curriculum, as they always had done, pretty strongly. But in the past they had been beaten in obtaining what they wanted. There might be a few who thought it was not wise to have the curriculum, but he believed the trade generally had now come to think that a little more regular education for their apprentices would be a considerable benefit and a great help in forming classes in districts like their own. (Hear, hear.) They had got plenty of ability as regarded teaching, but they could not get students; apprentices would not study until they were actually obliged to. If they in London could put the obligation a little bit earlier than at present, he thought it would be of immense advantage to their apprentices. Three years' study was a great deal better than crowding it into a few months. Therefore he hoped that the Bill—especially the curriculum part—would pass fully. The other part was, perhaps, more of a protection for the public. If they could induce all chemists to become members of the Pharmaceutical Society, that organisation would be a great power. At present they were comparatively few; but if they could draw in all chemists and druggists their strength would be almost irresistible. They saw what working-men did by being united, and why should not chemists, as professional gentlemen, be united, and work to attain the object they had in view? (Applause.)

The PRESIDENT proposed success to the Midland Counties Chemists' Association. He said in looking over the lists of presidents of the association for the last twenty years he saw such distinguished names that he found a difficulty in following in their footsteps. Next year was the twenty-first year of the existence of the association, and whereas at one time its income was only 1s. 6d.—(a laugh)—it now amounted to upwards of 20l. (Hear, hear.) He suggested that a dinner should be held next year to celebrate its twenty-first birthday. (Applause.) The association would no doubt last in the future, notwithstanding that it had been asserted by Mr. Richardson, of Leicester, that it had hitherto been a failure. Certainly the attendance of students at the classes, though amply provided for, had been a failure, but that was no doubt to be accounted for by educational centres providing the highest facilities for imparting education. One of the principal objects of the association was to combine the chemists of the Midlands, and that it had succeeded in that object was demonstrated by its list of members. (Hear, hear.) They had lately been trying to obtain a

grant for the purchase of books from the Pharmaceutical Society, and although up to now they had not succeeded, doubtless they would do so later on. The question of qualified assistants, to his mind, should be settled without much trouble. The means for getting qualified were so easy that no excuse could be made for there being unqualified men in the trade. (Hear, hear.)

The next toast was "Our Guests," proposed by Mr. Arblaster.

During the evening a clever legerdemain entertainment was given by Mr. S. Pridmore; and amongst other gentlemen who assisted vocally and instrumentally were Messrs. Nicholson, Clay, Thompson, Perry, Alcock, &c. The gathering, which was of the most enjoyable kind, broke up at twelve o'clock with the singing of the National Anthem.

EDINBURGH CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

At the meeting of this association held last week, Mr. D. McEwan in the chair, the first paper read was by Mr. John Findlay, on

LIQUID EXTRACT OF CASCARA SAGRADA.

Referring to the official process, the author suggested that more definite directions should be given in regard to the amount of water to be employed. He thought that 6 pints for the first decoction and half an hour's boiling, and 4 pints for each subsequent decoction, would serve.

Employing four waters, the following were the results obtained:—

	Specific gravity	Extractive per cent.
First decoction	1.016	4.1
Second "	1.010	3.4
Third "	1.004	3.1
Fourth "	1.002	0.9
Finished product	1.062	26.0

An objection to the official process is that on the addition of the spirit a large amount of mucilaginous matter is precipitated, which continues after filtration. Moreover, some are of opinion that the combined action of heat and air is detrimental to the active ingredients, and that the flavour is dissipated during evaporation. On the other hand, it is stated that heat destroys the ferment alleged to be present in the bark and to be the cause of griping. Dealing with these matters practically, the author found it impossible to exhaust the bark with so little water that evaporation was not necessary. The following are the formulæ with which he worked:—

Cascara sagrada, in coarse powder	1 lb.
Rectified spirit	4 fl. oz.
Distilled water	a sufficiency

Macerate the bark in 30 oz. of water for forty-eight hours, transfer to a percolator, and continue the percolation with more water until the bark is exhausted, reserving the first 8 oz. Evaporate the remainder to 4 oz.; allow to cool and add the reserved portion, together with 4 oz. of spirit. After standing for twenty-four hours filter if necessary, and make up to 16 fl. oz. with distilled water.

The finished product has a specific gravity of 1.061, and yields 25 per cent. of dry extractive.

The next method tried was to macerate the bark in a mixture of 4 oz. of rectified spirit and 12 oz. of distilled water for 48 hours. Transfer to a percolator and percolate with distilled water until the bark is exhausted, reserving the first 10 oz. Evaporate the remainder to 5 fluid oz., allow to cool, and add the reserve portion and 1 fluid oz. of rectified spirit. After standing for twenty-four hours filter, if necessary, and make up to 16 fluid oz. with distilled water. The product has a specific gravity of 1.100 and yields 30 per cent. of dry extractive.

The following American formula was also tried, although the author considered the quantity of spirit to be excessive. The bark is, however, very thoroughly exhausted:—

Rhamnus purshianus bark	1 lb.
Alcohol	6½ oz.
Water	3½ "

Percolate with mixed menstruum until 10 oz. have passed. Reserve this portion and continue the percolation until exhausted. Evaporate to 4 oz. and add 1 oz. of spirit. The specific gravity of this preparation is 1.050, and yields 30 per cent. of dry extractive.

With regard to the physiological action of these preparations the one prepared by macerating with the mixture of 4 oz. of spirit to 12 oz. of water was found to be the most active. Ten drops taken before breakfast had a decided effect on a person suffering from habitual constipation, and 25 drops acted as a powerful laxative. The one prepared by percolation with water alone is also very active, in fact, almost as much so as the preceding. The author then proceeded to mention that he knew of a tasteless extract which he believed was made by adding potash solution to the ordinary extract, and he concluded with some comments on the resins of the bark, his experiments leading to the same conclusions as have been arrived at by Zeig (*THE CHEMIST AND DRUGGIST*, September 28, 1889).

In a discussion on the paper it was pointed out that it is possible that the resins of the bark may exist in combination with ammonia, so that water would be a good solvent.

Following this, a paper of considerable length on

SEIDLITZ POWDERS

was read by Mr. J. H. Hoseason. In this the author showed (corroborating previous observers) that commercial powders vary much as to weight, and the blue-paper powders as to the proportions of their constituents. In some cases Rochelle salt and sodium bicarbonate are present in equal parts nearly, sometimes 2 of the former and 1 of the latter, 3 and 1, &c.—in fact, the results showed an entire want of uniformity, and the author maintained that this could only be got by making seidlitz powders official. He thought an official seidlitz powder should be based on the type of the present small size, and should contain neither sugar nor flavouring. Saccharin would make an ideal sweetener for seidlitz powders. Being soluble in an alkali, care would need to be taken to allow of sufficient alkali being left after neutralisation to keep the saccharin in solution, and give it full scope for its sweetening powers. The formula which the author thought the Pharmacopœia authorities should adopt is the following, which, it will be noted, provides for an excess of acid:—

	Grains
Tartarated soda	120
Sodium bicarbonate	40
Mix, and wrap in a blue-coloured paper.	
Powdered tartaric acid	40 grains
Wrap in a white paper.	

THE ANNUAL CONVERSAZIONE

was held in the Literary Institute Hall on Friday, December 13, at 8.30 P.M. Mr. A. R. Bennet occupied the chair, and there was a very large attendance, among those present being Messrs. William Gilmour, J. B. Stephenson, W. L. Howie, D. MacLaren, W. Smith, and Thomas Thompson.

The first two hours were devoted to songs, recitations, and instrumental pieces, contributed by Misses Macdonald, Gordon, and Wright, and Messrs. Davidson, Dow, Duncan, Hartley, Hogg, Lunn, Ruthven, Thompson, Waterstone, and Whyte, Mr. J. Ewart acting as accompanist. Under the management of Messrs. R. Butchard and J. H. Hoseason a dance followed, which was taken part in by about 80 couples, and was kept up with great spirit till 4.30 A.M.

The platform was very tastefully decorated with plants kindly lent by James Buchanan, Esq., and Messrs. Duncan, Flockhart & Co., Mackay & Co., Macfarlan & Co., Jas. Robertson & Co., T. and H. Smith & Co., and Baildon & Son sent an ample supply of aerated waters.

WITHIN the past six months a deposit of cinnabar has been discovered in the Ures district of the state of Sonora, North-Western Mexico. These deposits are now being worked, and are reported to be extensive—one yielding 30 per cent. of cinnabar in the ore, while as high as 50 per cent. has been found. This is the first cinnabar worked in Sonora.

HERBARIA.

MR. G. C. DRUCE, M.A., delivered an interesting lecture on Herbaria to the London Chemists' Assistants' Association at their meeting on December 12.

The fact that man is a frugivorous feeder the author considers is the basis of our botanical knowledge and medical science. Oral tradition would carry down the knowledge, and possibly the names of the discoverers, of new foods or the medicinal properties of plants, until at length these names might become venerated as gods, for doubtless intimately mixed up with religion would be the profession of the healing or killing art, and quite early in the history of our race would be the union of priest and physician. Moses appeared to be acquainted with "grass," "herbs," and "trees," but in the grant of vegetables to man for the purpose of food only the two latter are mentioned (Gen. chap. i.), the first being reserved for the beasts of the earth and the fowls of the air and everything that creepeth on the earth. Solomon was celebrated for his knowledge of plants, but all that we are told of this knowledge is that he spoke of them from the cedar of Lebanon to the hyssop on the wall. To the mistletoe, the vervain, the selago, and tamolus the Druids of Britain attributed efficacies almost divine, and ordained their collection and administration with the most complicated ceremonies. The consecrated mistletoe was an antidote to poisons and prevented sterility. The vervain (probably not the plant now called by that name) was to be gathered at the rising of the Dog-Star; it vanquished fevers and other distempers, was an antidote to the bite of serpents, and a charm to conciliate friendship. The selago, now impossible to identify, was not to be touched with the naked hand, nor cut with iron. It was a remedy for diseased eyes, and a charm against misfortune.

The knowledge of the medicinal properties of plants was evidently considered a highly valuable attainment many ages before the plants themselves were made the objects of a distinct science. The balm of Gilead bore a high place in the estimation of the Jews because of its healing power. Considerable *kudos* was evidently obtained by a knowledge of plant properties in the Heroic age. Homer tells of Patroclus, who stanching the bleeding wound of Eurypylus with the juice of a little root, the virtues of which he had learned from Achilles, and Achilles from Chiron; and we have it said of the wife of one of the heroes whom Nestor boasts of having slain in his youth, "Who knew the virtues of each earth-born herb."

The writings of Hippocrates, who figures on our diplomas; of Aristotle, whose comprehensive genius left scarcely anything unexplored; of his disciple Theophrastus, the first botanical author whose works have incontestably descended to these times; of Dioscorides, the famous physician; and of Pliny, the warrior and historian, were all commented upon.

The march of science was regulated, after the glory of Greece and Rome had departed, and before the Saxon hierarchy was founded, by the Caliphs of Bagdad and the Moors, the latter in their Universities of Cordofa and Granada keeping alive the vital spark of learning, and shielding through tempestuous days the doctrines of Aristotle, Galen, and Dioscorides.

Here too appear the Arabian philosophers to whom we owe the senna, cassia fistula, manna, tamarinds, and rhubarb, and in the Escorial may still be seen a MS. which was written by a protégé of Saladin.

In Britain one of the earliest writers after the Conquest was Henry, Archdeacon of Huntingdon, who lived in the reign of Stephen; but it was the invention of printing which quickened the pulse of botanical science by bringing within the grasp of a greater number the knowledge which previously had been the possession of the favoured few.

Eulogising Conrad Gesner, the greatest naturalist the world had seen since the days of Aristotle, and the man credited with the glory of being the first to divide plants into classes, genera, and species, the author went on to tell of Clusius, to whom we owe the introduction of the cherry-laurel and horse-chestnut; he detailed the ever-varying fortunes of William Turner, "the father of British botany," who, after leaving Cambridge and suffering exile, returned to his native land and filled the respective offices of Prebend

of York, Canon of Windsor, Dean of Wells, and Member of Parliament; and passed in rapid review the labours of Lyte (1578); Lobel (1570)—the name is perpetuated in "*Lobelia*"; Cæsalpinus, who first distinctly mentions the true difference of sexes in plants; the brothers Bautrin, Pona and Zanon, Johnson and Parkinson, Rhende, and the contemporary authors of "*The Golden Age*," Morrison, "the immortal Ray," Rivinus, Tournefort, and some others.

The first practical "*Flora of Great Britain*" appeared in the "*Synopsis*" of Ray, published 1690. The lecturer added a more lengthy notice of the labours of Linnæus, and a lucid exposition of his system, and of the binomial nomenclature he introduced, with some appreciative references to the labours of Gleditsch, Crantz, Gaertner, Gmelin, Willdenow, Greseck, Adamson, and a more special tribute of praise to Jussieu and De Candolle.

In sketching the history of herbaria Mr. Druce first remarked on the uncertainty connected with the origin of the word, and its early application as a book about plants. The oldest existing collection he knew of was that of Jean Girault, of Lyons, 1558. He had himself discovered a collection in the Oxford Museum, which he was able to ascribe to a Capuchin friar (1606). In passing Mr. Druce offered some criticisms on the botany of the B.P., and showed that, ably as it was done, there were slips here and there. Under *Mentha piperita* Smith is given as the author, whereas it was Hudson who first gave the name to the proper plant. It is true that Linnæus used the name *M. piperita*, but it was an error, as the plant he thus called was only a form of his own "*aquatica*"; the name thus fell to the ground, and was available for use by Hudson. There is an earlier authority than Wiggers for *Taraxacum officinale*; and again, under *Mentha arvensis*, Linnæus, not De Candolle, is the authority; its variety *Piperascens* should be quoted as of Malins, and its variety *glabrata* as of Holmes.

The lecturer emphasised the necessity of herbaria for systematic botanists. He believed it to be almost impossible to name with any degree of critical accuracy from descriptions alone the majority of species in our lists. Among the practical suggestions to collectors it was recommended that fugitive colours should be preserved by dipping the petals in a mixture of 3 parts of sulphurous acid and one of methylated spirit; they are bleached at first, but gradually regain their original tints in a permanent form. Bentham's "*Flora*," Hooker's "*Student's Flora*," and Babington's "*Manual*" are all good aids; Bentham's is the easiest to work from, but Hooker and Babington should always be consulted as checks.

The advantage of the study of botany to the pharmacist, especially now that the subject has been excised from the medical curriculum, was insisted upon, though the fear was expressed that the fierce and frantic zeal to add a new hypnotic or some new organic compound with wonderful temperature-reducing power to our groaning shelves will prevent chemists from giving much attention to this the more humble and less showy handmaid of therapeutics.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

BOTWOOD—PARKER.—On December 12, at St. George's, Hanover Square, London, by the Rev. A. H. Watts, Mr. Charles W. Botwood, pharmaceutical chemist of Spital Street, Dartford, to Caroline Lucy, only daughter of Mr. Anselm Parker, of Walsall, Staffordshire.

DEATHS.

CARLTON.—On December 8, at 8 High Street, Horncastle, Edwin Preston Carlton, chemist and druggist. Aged 44.

MACKEY.—On December 6, at Edinburgh, James A. MacKay, chemist, late assistant to Mr. Councillor Gamble, chemist, Grantham. Aged 22.

BLACKBOURN.—On December 5, at Southport, Mr. Henry J. Blackbourn, chemist and druggist, of Foe Brook, Liverpool. Aged 45.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

THE *Moniteur Scientifique* is to be, after all, continued by Dr. Quesneville's son Georges, a Fellow of the College of Pharmacy, and the pharmacist-in-chief of the Sainte Anne Asylum.

A SCHOOL OF NAVAL MEDICINE AND PHARMACY is to be established in some locality to be hereafter selected. Marseilles, Montpellier, and Bordeaux are the foremost candidates, and have through their representatives made to the Navy Department offers of sites and buildings for the proposed seat of learning. It is thought that Bordeaux stands the best chance for the choice.

THE ACADEMY OF MEDICINE, on December 10, held their grand annual meeting, and according to custom distributed many prizes and medals. Dr. Moutard-Martin, the same who last summer called the Therapeutic Congress to order, presided, while Dr. Féréol, annual secretary, read the list of prizes, and Dr. Rochard delivered an oration on a deceased member, Dr. Fonsagrives. Dr. Féréol, before proceeding with the roll, remarked that the Academy has a great many prizes to award, and the number keeps always increasing, while competitors are rather backward. In consequence, almost every year several prizes remain unawarded. In fact, they have more laurels than laureates. In the meantime the Academy is poor, and in sad need of rebuilding. Some time since Dr. Demarquay left a bequest of 130,000f. towards the formation of a building fund, and the secretary hoped future benefactors would follow his example. Dr. Rochard paid a warm tribute to Dr. Fonsagrives, his former colleague in the navy service, who is chiefly known for his works on hygiene, now translated into various foreign languages and accepted as standard authorities. It may here be noted that a seat near the desk was occupied by one of Dr. Fonsagrives' sons, who is a chaplain in the navy, and he was accompanied by two other priests and a bishop—a rather unusual occurrence at an academy of medicine sitting. Among the prizes interesting to pharmacists may be mentioned:—The Henri Buignet prize (1,500f.), taken by Professor Imbert, of the Montpellier College of Pharmacy, for a work on the anomalies of vision; the Desportes (800f.) awarded to pharmacist Dupuy, of Mauriac, for researches on alkaloids, and 500f. to Drs. De Beurmann and Villejean, of Paris, for their work on hypodermic injections of quinine. Silver medals were given to Dr. Fonsart, of the army, and pharmacist Ehrmann, for their researches on scarlet fever, made during an epidemic in a regiment at Saint Quentin. The other rewards and distinctions fell to physicians.

GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

DIURETIN—theobromine-sodium-salicylate—the latest new remedy, is recommended as a diuretic, given three or four times a day in 15-grain doses. It is a white powder, soluble in less than half its weight of water.

GERMAN DENTISTS.—Germany, with a population of over 47,000,000, has only 514 dentists; only those who get through a special university course and a severe examination may call themselves by that title. There are, of course, drawers of teeth in plenty, and they mostly do a good trade.

THE INFLUENZA EPIDEMIC.—Among the remedies in use for this affection antipyrin and antifebrin have been perhaps the most popular in Berlin. Some practitioners claim to have discovered the influenza bacillus—at least, they say they have found a bacillus in the nose of influenza patients which the ordinary nose knows not.

TREATMENT OF FROSTBITE.—Professor Liebreich gives several formulæ for this in his paper. He recommends particularly a lotion composed of alum and borax aa. ʒiiss., dissolved in 10 oz. of water, and ʒss. tinct. benzoin added. He also recommends ointments of 1 oz. of fat or 45 grains of camphor oil with 1 oz. of ung. lanolini.

ADDITIONS TO THE PHARMACOPŒIA.—The committee of the German Apotheker Verein has consulted its members with regard to the unofficial remedies to be included in the supplement to the Pharmacopœia. A list containing about 2,300 substances is sent to each member, and he is asked to tick off in blue such novelties as he thinks worthy of being included. This should satisfy the most earnest advocate of the democratic system.

SOMNAL is having a "struggle for life," and is attacked in several quarters. Professor Liebreich sits very heavily on it in this week's *Therap. Monatsch.*, describing it as of indefinite composition, and an unknown mixture, and says it is strange that medical men, taken in by its seductive name, should prescribe a mixture of chloral hydrate with some unknown substance, and thus encourage secret remedies.

AMMONIUM PICRATE.—In the same journal Dr. Schellong reports on ammonium picrate in malarial fever. He finds the remedy of practically no effect, though he prescribed doses of $\frac{1}{2}$ grain, and in no way comparable to quinine. This is a very different conclusion from that of Dr. Clark, published in the *Lancet* of February, 1887, who had only 9 failures out of 5,000 cases treated with the above compound. Dr. Schellong disapproves also of Warburg's tincture, after trying it in several cases, and says it also should not be used when quinine is at hand.

PHARMACY IN INDIA.

SULPHONAL AND PHENACETIN are advertised in the daily papers here by F. Bayer & Co., of Elberfeld.

THE Government of Bombay has established a chair of pharmacology in the Bombay University. The first professor is Dr. Bahardarjee, a Parsee.

FIRE.—On November 11 Fort Bombay was the scene of a gigantic fire, which destroyed property to the value of 1,700,000r. Amongst those who were burnt out were Cowasji Brothers, D. P. Bathat & Co., and Mr. H. F. Soares. The last-named gentleman, who is the Bombay representative for Craig, Baldry & Co., barely escaped the flames; he lost his entire property, valued at 7,000r., which was uninsured.

FOR THOSE IN BUSINESS.—Our correspondent, writing in regard to trade in the Central Provinces, states that there is room for a good chemist at Mhow, Central India, close to Indore. He is sure that there is a large fortune awaiting any chemist who will open there.

FOR ASSISTANTS.—There is not a fortune, however, in situations with 100 rupees a month. Such a salary as this is totally insufficient for the ordinary requirements in India. The best posts are to be had in Calcutta and Bombay; in the interior salaries are not so high, but then living is cheaper, and there are not so many facilities for spending money. Madras pays its assistants worst of all; 200 rupees a month is little enough to go out for.

SANDAL WOOD.—The Inspector General of Forests announces that the annual auction sales of sandal wood, being the produce of the province of Mysore, will be held between November 11 and December 19. The following are the quantities offered:—

	Tons
From the Shimoga district	770
" Kadur "	200
" Hassan "	300
" Mysore (Seringsapatam and Hunsur) district.. ..	1,000
" Bangalore "	150
Grand total	2,420

PERSONALITIES.—Mr. Fiske, representing Messrs. Parke, Davis & Co., of Detroit, is expected here shortly.—Mr. Taylor, of Messrs. Thomson & Taylor, Bombay, has taken a holiday at the hill station, Matheran.—Mr. E. Beynon (Phillips & Co. Lim.) went to Ootacamund for a short rest. Mr. Highmoor, of the same firm, having left for Australia, has been succeeded by Mr. F. B. Stewart, lately manager to

Cooper, Madon & Co. (Lim.).—Messrs. Merton, representing several Parisian houses, have arrived at Bombay. The elder Mr. Merton introduced French coated pills into India the last time he was out.—Mr. W. A. Thurman, representing Messrs. Lynch & Co. and others, has arrived.—Mr. Charles W. White (representing several English houses) has returned to Bombay from a trip through Nagpore, Indore, and the Central Provinces. He is the first drug traveller who has gone to that district.

CANADIAN NOTES.

THE druggists in the Niagara district have formed an association.

THE Toronto druggists are within an ace of agreeing to uniform prices as set forth in a price-list.

A NEW drug store has been opened at Acton, Ont., by Messrs. J. V. Kannavin & Co.

FAILURES are somewhat common amongst small druggists in Ontario at present.

MR. W. O. FOSTER, of St. Thomas, is the president of a new druggists' association, the "Middlesex." It meets at London, Ont.

MR. J. J. BANNON has bought the business at Norwich, Ont., belonging to Mr. J. A. Tidey, who retires after thirty-five years' hard work in it. Mr. Bannon was his principal man.

As so many druggists have been prosecuted for the sale of liquor, a movement is on foot to get some legislative protection for them. Meanwhile, the druggists of Toronto have agreed to sell only when the liquors are ordered in writing by regularly qualified physicians.

THE Montreal College of Pharmacy is on the outlook for a new building, and they are likely to get what they want in St. Catherine Street. They would like to spend \$10,000 in fitting it up as a school and meeting-place, and are now appealing for funds. They have been promised about \$4,000.

THE Canadian Customs officials have recently decided that Murray's fluid magnesia will pay 50 per cent., and turmeric and sodium sulphate 20 per cent., duty. By the time these commodities get into the hands of the consumers the taxes will have become about double; but the Government will only have got its 50 and 20 per cent., all the same.

MANITOBA has a pharmaceutical association of its own, and its own pharmacy law. It recognises the certificates of the Pharmaceutical Society of Great Britain, following in this respect the regulation of the Ontario College, under which holders of such certificates are registered without examination. An effort is being made just now to get the Montreal and Ontario Colleges to accept each other's diplomas.

A MAN named McDonald has been arrested in St. Johns, N.B., on a charge of being concerned in the death of Mrs. McRae, the wife of a clergyman. It is alleged that Mrs. McRae's death was caused by strychnine contained in some sweetmeats. These sweetmeats were, it is stated, sent in a box similar to those used in Barker's drug establishment, to which McDonald had access; and it is stated further that he had been seen in the room where the strychnine was kept.

THE SALE OF LIQUOR.—An inspector, assisted by two women and a man, have been making havoc with the druggists of Toronto, having discovered fully sixty cases of illegal liquor-selling; about half of the accused have been brought to trial, and they pleaded guilty so as to have the cases settled with as little publicity as possible. In many of the cases the sellers undoubtedly supplied the liquor in what appeared to be cases of extreme necessity, and there is a good deal of grumbling about the \$20 fines and expenses indefinite.

WHO IS THE SELLER?—The prosecution at Beverton, Ontario, recently of the daughter of an unqualified person for

the sale of poison (pink root) during her father's absence resulted in the defendant being fined \$20 and costs; thus agreeing with the decisions which have been given in English Courts. This is the first time it has been decided in Ontario that the assistant who sells the poison is responsible, and it is pointed out that if the principle is legally correct, it can be applied in cases of druggists' mistakes, non-registration of poisons, and the like, when the assistant can be held directly responsible to the law.

TORONTO DISPENSING CHARGES.—The Druggists' Association have at last agreed upon the prices which are to be taken as minima. The following are examples of the charges for mixtures:—

1 oz. . . . 20 cents	6 oz. . . . 50 cents
2 " . . . 25 "	8 " . . . 60 "
3 " . . . 35 "	12 " . . . 75 "
4 " . . . 40 "	16 " . . . \$1

The way in which the price is to be marked on prescriptions is to put down five times the charge and mark x. s. below it; thus for the 2-oz. mixture $\frac{125}{x.s.}$

NEW COMPANIES.

HORACE C. LEWIS & CO. (LIMITED).—Capital, 2,000*l.* in 1*l.* shares. Object, to acquire the business of Horace Charles Lewis, of 29 Ranelagh Street, Liverpool, photographic dealer.

WILSON, SALAMON & CO. (LIMITED).—Capital 24,000*l.*, in 10*l.* shares. Object, to carry on the business of manufacturers of and dealers in anhydro-ortho-sulphamine-benzoic acid, commonly known as Fahlberg's saccharin, and the exploitation and development of the sale thereof. The first directors are H. Cosmo Bonsor, M.P., A. E. Tylor, M. Laing, J. W. Wilson, N. Salamon, and A. G. Salamon.

BENGAL INDIGO MANUFACTURING COMPANY (LIMITED).—Capital, 150,000*l.*, in 10*l.* shares. Object, to carry on business as indigo planters, manufacturers, and dealers. First subscribers:—W. E. Melland, Moorfield, Withington; M. A. Herrmann, 58 Magdalen St., Hamburg; E. C. Schrottky, 22 Werder St., Dresden; J. Leigh, Tatley House, Knutsford; S. Mosley, 104 King Street, Manchester; J. B. Lonsdale, 9 Fennell Street, Manchester; S. A. Pedley, Prestwich; J. W. Radcliffe, Werneth Park, Oldham; F. Karuth, 50 Perham Road, Kennington. Messrs. Leigh, Melland, Radcliffe, Lonsdale, Schrottky, and Herrmann are to be the first directors.

W. H. & F. J. HORNIMAN & CO. (LIMITED).—Capital, 250,000*l.*, in 4,000 preference shares of 25*l.*, and 3,000 ordinary shares of 50*l.* each. Object, to acquire the business carried on at Wormwood Street, E.C., under the style of "W. H. & F. J. Horniman & Co.," tea dealers and merchants. The first subscribers (one ordinary share each) are:—F. J. Horniman, 29-33 Wormwood Street, E.C.; W. Figg, 38 Mincing Lane, E.C.; G. W. Potter, M.D., 8 King Street, Cheapside; J. W. Jones, Sussex House, Hornsey Rise; J. T. Livermore, 36 Fairholt Road, N.; F. H. Stollery, Norfolk House, Clapton; and A. Scarr, 55 Varley Road, N. The first directors are F. J. Horniman, E. J. Horniman, J. R. Manning, and L. R. S. Walcott. F. J. Horniman is appointed chairman.

THE HUBBARD GERMICIDE AND SANITARY COMPANY.—Capital, 35,000*l.*, in 1*l.* shares. Objects, to purchase and take over the right to manufacture and sell a certain compound known as "Hubbard's Vegetable Germicide Deodoriser and Disinfectant." Subscribers of one share each are:—Stephen F. Smart, attorney, 65 Regent Street; Lucius aurelius Bigelow, 63 Equitable Buildings, Boston, U.S.A.; Henry Preston, chemist, 139 Fentiman Road; Henry Webber (late Commander R.N.), 179 Old Christ Church Road, Bournemouth; James Thorne Roe, C.E., 17 Bristol Gardens; Henry Pocock, wine and spirit merchant, 48 Charlotte Street, Fitzroy Square; and Joseph Newton, F.R.H.S., 3 King William Street, Strand. Voting-power, one vote for every fifty shares. Directors: James Thorne Roe, Lucius Aurelius Bigelow, and Stephen Farrington Smart.

Trade Notes.

"WATTS' INORGANIC CHEMISTRY" used to be 9s.; it is now 8s. 6d., the publishers inform us.

MESSRS. ARMBRECHT, NELSON & Co., of 2 Duke Street, Grosvenor Square, W., are issuing a series of highly artistic card almanacs, which are worth the attention of chemists at this season.

MESSRS. BURROUGHS, WELLCOME & Co. will open their offices and warehouses at Snow Hill Buildings for a short time on Friday and Saturday morning, December 27 and 28, for the execution of urgent orders.

A CONTRAST.—We are receiving many compliments about THE CHEMISTS' AND DRUGGISTS' DIARY, 1890, one of the prettiest being, "It is the best you have yet had—worth any number of Curriculum Bills."

WE have received one of 20,000 Medical Dictionaries which Mr. H. E. Cullwick, of Wolverhampton, is issuing just now. "Cut prices" are a feature in it.—We have also received a well-written Medical Guide and Price-list from Mr. George Coverdale, Parliament Street, York, which ought to promote business.—Mr. Sydney Webb, 69 South Clerk Street, Edinburgh, sends us a very neatly produced List of Medicinal and Toilet Preparations, sixteen pages, square envelope size.

FRESH PEEL.—Messrs. Charles Southwell & Co., of Dockhead, S.E., have done a distinct service to the drug trade by introducing fresh lemon and fresh bitter-orange peel, cut into regular shreds $\frac{3}{4}$ inch long by $\frac{1}{16}$ inch broad. These peels are practically a by-product in the firm's works, so that they are able to offer them at a very moderate figure. Samples of the peel which we have examined are of excellent quality, and are remarkably free from the inner inert and odourless cortical portion. The makers tell us that in London delivery can be effected the same day, or the day after, it is cut; and as it is usually made in stone jars, containing about 6 lbs., it can be sent to the country with full assurance that it will be delivered in good condition, as it is perfectly sound four days after being cut. This is a line which is well worth the attention of those interested.

Personalities.

MR. PARNELL was the guest of Mr. Edward Evans, the wholesale druggist, of Liverpool, on the occasion of his visit to that city on Thursday of this week.

MR. S. F. STOLL, a prominent druggist of Atchison, Kansas, has recently married Sadie, the second daughter of Mr. J. P. Brown, the millionaire.

MR. W. WOOD, chemist, Pontypool, has taken into partnership his nephew, Mr. Godfrey C. Wood. The business will be conducted under the style of W. & G. C. Wood.

MR. T. D. WRIGHT, 26 Chapel Street, Southport, having accepted the post of technical chemist to Messrs. Holme & Co., Lancaster, has disposed of his business to Mr. F. J. Smith, chemist, of the same town.

"LEAVES FROM THE MENTAL TREE" is the title of a book of poems published by Mr. George V. Owen, the son of a Handsworth chemist. The author is only in his teens, but is known as a somewhat prolific writer of poems.

MR. E. N. BUTT has returned from a visit to the United States and Canada. He did not trouble pharmacists much, but we are told that the few who met him "were most agreeably impressed with his charming society and extensive range of pharmaceutical experience."

MRS. FRED REYNOLDS, of Leeds, whose name and address indicate at once an association with pharmacy, has written and illustrated a very pleasing short tale for children to read during their holidays. It is entitled "Little Prince Friseo," and describes that young gentleman's trip into Holiday-land and the uncanny mortals he had to encounter on his way. The book is published at 2s. by Messrs. McCorquodale & Co. (Limited), London and Leeds.

RIVALRIES IN THE PETROLEUM TRADE.

THE petroleum trade of this country, says the *Pall Mall Gazette*, has been for some time in a transition state. For some years American petroleum oil had the monopoly of the English market, the native article distilled from shale having been beaten out of the field. A fresh transformation was, however, effected when Russian oil came into competition with the American. Until quite recent times petroleum was transported in barrels, and that handicapped the Russians, as they were without wood, and had first to import their barrels from America or elsewhere. By means of tank steamers, however, they were enabled to land the oil in this country at much less cost, and to compete on favourable terms. But they did not stop there. The American refiners had never troubled themselves with the disposal of the oil to the consumers, but rid themselves of all responsibility as soon as it was shipped at their ports. The Russians, on the other hand, appointed agents up and down the country, and made it worth their while to push the sale of their oil, with the result that they soon had a firm hold of the English market. As their business grew the American decreased, until they had secured about one-half of the whole.

The American refiners were naturally alarmed at thus being gradually ousted, and considered how they might retain their hold. The economy in the transport effected by tank steamers was so great that they saw that the barrel system could not stand against it. The merebants here who acted as distributing agents were not in a position to build and equip vessels of their own, and the Standard Oil Company of America, which controls the trade on the other side, came to the conclusion that they must undertake the work of distribution as well as production. The Anglo-American Company was accordingly organised, and two tank steamers of 4,000 tons each were built, and stores were erected at Purfleet and Birkenhead. This, of course, meant the elimination of the English merebants who had hitherto carried on the trade, and especially so when the Anglo-American Company announced that they would offer no better terms to the large than the small buyer. All were welcome to come and buy at the same price. In short, they have made it very clear that they want no middlemen, and that their policy is to get the producer and consumer into direct contact, so that they may be able more effectually to compete with their Russian rivals. Several of the old firms have been appointed agents, but with these exceptions the English merchants have been put aside. Their grievance is that, after devoting years to the American business, they should receive no consideration at the hands of the American refiners; while, on the other hand, the latter excuse themselves on the ground of the exigencies of the trade.

To the public the new developments are all in their favour. Illuminating oil has never been so cheap as at present, while the direct connection between refiner and consumer, in the case of both the Russian and American articles, has tended to raise the quality and make it more even. It is to their interest to see that there is no mixture with inferior oils, which might, and no doubt did, occur, when several persons intervened. Quality in an illuminating oil is obviously of great importance, although it is well to remember that the construction of the lamp in which it is burned is also of vital moment. Indeed the experiments of Sir Frederick Abel and Mr. Boverton Redwood show that an oil of a comparatively low firing-point can be burned with safety if the lamp is properly constructed, while an oil of even a high firing-point is dangerous when the lamp is bad. If not properly constructed no oil is safe.

The importation of petroleum has enormously increased of late, as the following figures from the Board of Trade returns show:—

1883	71,026,932 cwt.	1888	94,177,807 cwt.
1887	77,458,062 "	1889 (ten months)	83,547,533 "

MR. HINDLE, chemist, of High Street, Gorleston, will shortly open the new chemist's shop which is being fitted up for him in England's Lane, of that town.

REGISTERED **"SANITAS"** TRADE MARK.

DISINFECTANTS.

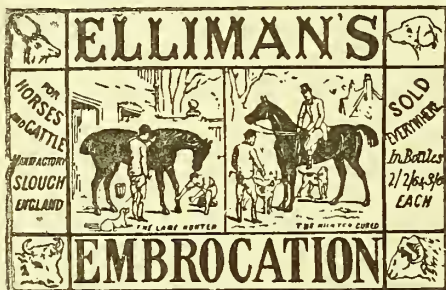
Fluids, Powders, Soaps, Tincture & Veterinary Preparations.
Gold Medals, Calcutta, 1884; Paris, 1885; Antwerp, 1886; Ostend, 1888.

KINGZETT'S BACTERIGIDES.

KINGZETT'S PATENT PRESERVED
PEROXIDE OF HYDROGEN.

THE SANITAS CO., LIM., BETHNAL GREEN, LONDON.

SHOW CARDS, 24×17 or 17×12,
Free to any Address in the United Kingdom.



See First page, facing inside of front of Cover, in the
First Issue of the month.

WEDICAL ELECTRICITY.

EVERY DESCRIPTION OF
Galvanic, Faradic, and Electro-Magnetic
Machines and Electrodes, Galvano-Cautery and
Lighting Instruments.

Lists free. Descriptive Catalogue, 100 illustrations,
32 pages, 4 stamps.

GENT & CO., LEICESTER.



FINEST QUALITY

PURE STARCH POWDER

In 56-lb. and 1-cwt. Bags, 28s.; [3]
In 7, 14, and 28 lb. Bags, 28s. per cwt., bags included.
DELIVERED FREE IN LONDON.

G. S. MUMFORD, FARRINGDON ROAD, E.C.

"SECURUS JUDICAT ORBIS TERRARUM."

Apollinaris
"THE QUEEN OF TABLE WATERS."

The filling at the Apollinaris Spring (in Rhenish Prussia)
amounted to

11,894,000	Bottles in 1887
12,720,000	AND " " 1888
15,822,000	" " 1889

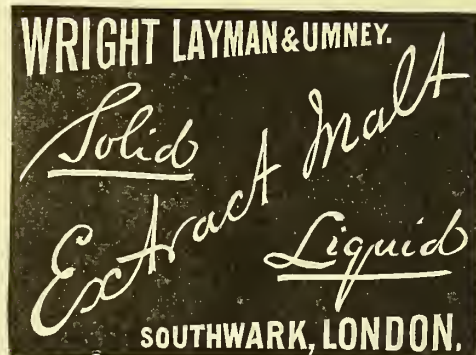
MOSS'S CASCARA

BARK—Fine selected quality, as used for making our
EXTRACTS—Solid and Liquid, B.P. and Tasteless

*Our preparations may be obtained through Wholesale Houses,
or direct from*

JOHN MOSS & COY

Makers of Galenical and Medicinal Chemicals,
Galen Works, Wilson St., NEW CROSS ROAD, S.E.



SILICATED CARBON FILTERS

AERATED

PATENT MOVABLE BLOCK.

See Advertisement, page 15.

SPONGE! SPONGE!

THE MOST RELIABLE HOUSE IN THE TRADE.
The Best and Largest Assortment to select from.

HARRIS & CO., SPONGE IMPORTERS

65 BATH ST., CITY ROAD (Opposite the Vestry Hall), LONDON, E.C.

All orders throughout the United Kingdom are sent on approval Carriage Paid both ways, and selected to suit the requirements of intending purchasers.

We cultivate Competition. **COMPARE OUR QUALITY AND VALUE** with that of other houses and judge for yourselves: Shipping Orders receive the personal superintendence of one of the principals.

EDITORIAL NOTES.

IRISH PHARMACY.

THE Council of the Pharmaceutical Society of Ireland have referred to a committee for consideration a report which appeared in this journal on November 9, of an interview between a number of representative druggists and the Irish Solicitor-General. And the reference is quite a wise one. Ostensibly the object is to inquire into certain historical statements which appear to have been made at that interview, but we should suppose that the absolute accuracy of what was said, or of our report of what was said, is a matter

of secondary importance. The facts that the Irish druggists are going for their Bill in the next Session of Parliament, that they have got the ear of a prominent member of the Government, and that they are united in their demand for the pound of flesh already offered to them are of considerable moment, and Mr. Wells was correct in saying that to pass over them would look as if they were indifferent to the interests of their licentiates. We have fairly good reason to state, besides, that, if the Irish druggists think proper to proceed in the direction in which they have started, they will not be without some influential support from within the Pharmaceutical Society. It must be admitted that those who advocated the "no surrender" policy on the Council have been fairly well justified by results. They have drummed a large affluence of pharmaceutical chemists into membership, and they have staved off for a time the almost inevitable substitution of a new Pharmacy Act for the comparatively valueless one they at present possess. They have had, and still have, the opportunity of ensuring by some little immediate sacrifice the incorporation of the entire drug trade of Ireland into one body possessing substantial power and able to accomplish real work. They would still retain the best seats at the banquet and the chief control in the direction of affairs. It will be for their committee to consider whether it can be advisable to reject this opportunity for the sentimental, but shadowy satisfaction of continuing to officially ignore their hated, but not the less existing, rivals.

OFFICIAL STANDARDS FOR CONCENTRATED INFUSIONS WANTED.

A SHORT paper published in this issue on "Concentrated Infusion of Senega," which was read at the Liverpool Chemists' Association last week, is both seasonable and opportune in view of the early publication of an addendum to the British Pharmacopœia. It has so long been stated that the officialising of concentrated infusions is a debatable point that it would seem that we make no progress whatever in this department of pharmacy; but in the employment of these preparations we certainly do make progress. Mr. Buck says—and we have no reason for supposing that he exaggerates the facts—that "almost every medical man who dispenses his own prescriptions and perhaps four-fifths of the chemists make their infusions" from the concentrated preparations. It would also appear that those who still conform to the older method of preparing the infusions fresh as required are occasionally forced by exigencies of time to subjugate their sentiment to what is most practicable in the circumstances, and so employ the concentrations.

We quite sympathise with those of the latter class, for as the matter at present stands they have the best of the logic of the case. Fresh infusions are pharmacopœial, concentrated infusions are not, and legal requirements compel the use of the former when ordered in physicians' prescriptions. Moreover, it happens that the commercial concentrations are very variable in nature, and many do not when diluted furnish preparations at all resembling in appearance those which they are intended to represent. However much this may be regretted, it is exactly what happens with all preparations for which there is no recognised standard, and experience shows that uniformity can only be ensured by setting up such standards. We ask for official formulæ for concentrated infusions because these preparations are used by the large majority of dispensers, medical and pharmaceutical; because the commercial preparations are of very variable character; because the published data in regard to the manufacture of reliable concentrations are sufficient for pharma-

copœial purposes, and because the modifications made in the 1885 formulæ for fresh infusions have failed to secure greater popularity for these preparations.

It may be that the compilers of the British Pharmacopœia share the opinion that fresh infusions are superior to diluted concentrations, but we submit that the latter present so many desirable features that they have obtained a permanent place in medicine, and it is the duty of the Pharmacopœia compilers to accept the logic of facts, and, by creating official standards, remove any evils which may exist in the custom.

DRUG AUCTIONS IN PARIS.

PERIODICAL drug auctions have been held in London for generations, and there is not at present any prospect of their discontinuance, though occasionally voices are heard in advocacy of their less frequent occurrence. We should be disposed to think that no small part of the pre-eminence of our port as a centre for the drug trade is due to these auctions, and that the publicity which attends all transactions at the sales is of immeasurable service in attracting shipments of drugs from all parts of the world to London warehouses. The only other markets, so far as we are aware, where public auctions of drugs and goods of similar character are now held at fixed intervals are Amsterdam and Rotterdam, and the transactions in these cities are confined to varnish gums, and cinchona. But the extension of steamship communication, the striving of Continental nations for colonial acquisitions, the extraordinary growth of the industrial importance of Germany and the United States, and a variety of other causes have called into existence during the last twenty years a number of drug markets of some importance where there is a disposition to look upon London with something like jealousy. These markets are still forced to follow our lead, and probably will continue to be so for many years; and both New York and Hamburg, our principal competitors, are at the same time among our best customers for raw drugs. But as the great Continental States grow in commercial importance, and their inhabitants advance in purchasing power, we must be prepared to see them gradually emancipate themselves from our leadership, and get ready for the time when we shall have to look upon them as competitors in the less developed markets of the world, rather than as customers of ours. To a large extent these conditions already prevail in manufactured goods, and presently the same will be the case with raw or partly manufactured articles, such as the drugs which pass through the London auctions.

It is therefore a matter of surprise that no serious attempt should ever have been made to copy our drug auctions in such places as Hamburg, Havre, Marseilles, or New York. From time to time rumours have arisen that steps in this direction were about to be taken, but no definite results have followed. The fact that London is the only market where foreign shippers can put the actual value of goods to the reliable test of open competition explains, probably, why a large number of goods shipped from Chinese and Indian ports to Hamburg, by the new German mail-routes, are regularly trans-shipped hither to be sold by public auction. But the first indication in this direction comes from neither Germany nor America. We understand that a determined attempt to establish public auctions for drugs is now about to be made in Paris. In that city there have been hitherto occasional drug sales under the auspices of three or four brokers and agents, some of whom were formerly rather intimately connected with the London market. But these auctions consisted generally of goods seized under judicial warrants,

or which had otherwise to be disposed of, and not drug auctions in the London sense. We have at this moment before us a catalogue of such a "vente judiciaire" which took place at the Magasins du Chateau-d'Eau last Saturday, when about 11 tons of Senegal and Aden Arabic gums, two cases soap, two boxes aniline black, and a quantity of other goods were offered for sale. Another, and larger, sale of drugs, the stock of a firm whose business had been liquidated, took place a few days previously, and it is said that the excellent prices realised on that occasion have given a strong stimulus to the party who favour regular drug auctions on the London system. It is claimed by that party that public auctions would considerably curtail the charges on drugs now falling upon importers, who would then be able to dispense with private warehouses and sell goods direct from the docks or entrepôt. On the other hand, information we have collected from the wholesale trade in Paris shows that in their body, as distinguished from the brokers and certain agents, the public auction scheme does not meet with much enthusiasm. One firm gave it as their opinion that the plan would probably be successful if the Havre importers could be induced to support it, but on the whole it seems likely that the Parisian wholesalers are scarcely the people from whom much assistance can be expected.

Another imitation of British customs has, however, been recently adopted by the Parisian wholesale druggists. They now meet on 'Change three times a week, on Mondays, Wednesdays, and Fridays, from 2.30 to 3.30 P.M., at the new Bourse du Commerce in the Rue du Louvre, which is in close proximity to the centre of the drug quarter. This innovation is due to the efforts of the same brokers who are prominent in the public auction agitation, and we are informed that the wholesale trade have taken to this scheme with much more enthusiasm than they displayed towards its sister project, and that the majority are heartily supporting the Bourse meetings. That their customers will hail the scheme with satisfaction cannot be doubted by anyone who has had experience of the inaccessibility of the Parisian wholesalers, and of their tendency to make their would-be purveyors cool their heels in an antechamber for hours in anticipation of being ushered into the presence of the principal.

INDIAN GUMS.

AT last month's evening meeting of the Pharmaceutical Society Mr. J. H. Maiden, of the Technological Museum, Sydney, communicated a paper on the "Similarities and Dissimilarities of Sterculia Gum to Tragacanth." Mr. Maiden, who has done so much good work in elucidating the economic products of Australia, is to be commended for taking up a subject of such general and chemical interest. He showed in his paper how gums produced, or said to be produced, by plants of totally different natural orders are very similar in appearance, and instanced those of *Cochlospermum Gossypium* and *Sterculia urens* as being so much alike that upon mixing pieces of both he found it difficult or impossible to separate them. These facts point to a very important matter that frequently exercises the minds of those who have charge of collections of gums, resins, and similar produce, namely, the doubt that frequently attaches to the accuracy of the names of products that are sent from abroad unaccompanied by actual specimens of the plants themselves. We take this opportunity, therefore, of impressing upon the minds of collectors of forest products the absolute necessity of collecting also, and at the same time and place when possible, samples of the leaves, flowers,

and fruits of the plant furnishing the gum, resin, or what not. Of course, we are not forgetful that a large number of the specimens sent to our museums are procured from the natives or obtained from bazaars, and not direct from the living plants, and it is to this fact that many mistakes arise in the proper determination of the several products, whether drugs or otherwise.

In connection with this subject, and bearing some relation to that taken up by Mr. Maiden, we may refer to some few gums of Indian origin that bear some resemblance in substance, though not in appearance, to the tragacanth-like series. Thus, under the name of "Mochras" or "Mocherus," several dark-coloured but transparent gums are known in India; that generally going by this name, however, is usually ascribed to *Bombax malabaricum*, a large tree belonging to the tribe Bombaceæ of the natural order Malvaceæ. It seems that no amount of tapping or notching, or even cutting deeply into the bark or sapwood, will produce the smallest exudation of any gum or mucilage; but when the bark is diseased a sort of jelly flows abundantly in spring as the sap rises. From observations made in India of a large living bombax tree, a part of the trunk of which was swollen from disease and the bark split and decayed, a yellowish jelly-like substance had exuded from all the wounds, described as being "sometimes like a mere tube of paint squeezed out of an oil-colour tube, and at others forming a mass of the size of a large tomato." On exposure to the air the outside of this mass soon hardens, after turning brown, and the whole mass then dries up and collapses, or, rather, shrivels into an irregular, wrinkled, and hollowed lump, of a dull brown colour and brittle, but somewhat mucilaginous if softened in the mouth. Fresh "Mocherus" from this tree, when put in either hot or cold water, was found to soften and swell and to disintegrate, though it was not absolutely soluble. Upon chemical examination it was found to contain a certain, though not a large, amount of a modification of tannic acid and a red colouring matter, which was destroyed by acid and restored by alkali. The drug is used in India as an astringent and for various mucous derangements, in menorrhagia, and as a styptic.

A very similar or identical gum is said to be derived, in some parts of India, from the areca or betel palm (*Arcea Catechu*), while in Lahore "Mocherus" is declared to be produced by the Sohájna tree (*Moringa pterygosperma*), a leguminous tree 30 feet to 35 feet high, and known to Europeans as the horse-radish tree, in consequence of the root having a pungent taste, and being used as a substitute for that condiment. The gum from this tree, though its exterior appearance is not very dissimilar to that just described, shows upon fracture a dark rose colour, with a very waxy appearance. It varies, however, "in colour from a red to a semi-opaque pink to almost white"; and in form from irregularly-rounded tears to longish stalactitic pieces. Though hard and brittle, it softens and swells in the mouth; and placed in water forms a firm jelly. The gum which most nearly approaches this is that produced by *Eriodendron anfractuosum*, a widely-distributed Indian tree growing some 50 feet or 60 feet high, closely allied to *Bombax malabaricum*, and sometimes known as the cotton tree, in consequence of the fruits being filled with a mass of silky cotton, in which the seeds are embedded. It has been stated that gum kuteera, which is now referred to species of *Sterculia*, is the product of *Eriodendron*; but this would seem to be a mistake. Anyhow, the gum received from India as the produce of *E. anfractuosum* is of a dark reddish colour, transparent, and swelling in the mouth in the same way as the gum of *Moringa*.

From *Stercospermum echelonoides*, a tree found throughout

the moister parts of India, and belonging to the natural order Bignoniaceæ, a red-coloured gum exudes not unlike those previously referred to. It is, however, of a brighter fracture. Little seems to be known about it. Another deep red gum, externally very dark and opaque, and only partially soluble in water, is said to be furnished by *Ailanthus malabarica*. It occurs in rather large roundish tears, and is said to be sometimes used in India as a remedy in dyspepsia. Dymock says:—"It yields a fragrant resin known as Muttee pal on the Annamallays, which may become valuable as an article of trade. Reduced to powder, mixed with milk and strained, this resin is given in small doses in dysentery and bronchitis, and is reputed to be an excellent remedy, owing to its balsamic properties." Mr. Broughton, sometime Government Quinologist, describes it as dark brown or grey, plastic, opaque, and with an agreeable smell. It is often very impure; but the pure resin is soft, of the consistence of thick treacle. When burnt, it gives off a fragrance, and hence it is sometimes used for incense. The perfume is, however, inferior to those resins usually used for this purpose. The tree belongs to the natural order Simarubæ.

Drury, in his "Useful Plants of India," states that *Macaranga indica*, a euphorbiaceous tree very common in Travancore, exudes a gum resin from the cut branches and base of the petioles. He describes it of a light crimson colour, and says that it "has been used for taking impressions of leaves, coins, medallions, &c. When the gum is pure and carefully prepared the impressions are as sharp as those of sulphur, without its brittleness. Powdered, and made into a paste, it is reckoned a good external application in venereal sores."

It will be seen from the foregoing remarks that trees of very distinct natural orders are credited with furnishing gums of very similar characters. Much confusion, however, no doubt exists as to the accurate identification of the sources of some of these gums, and this is but one question out of many connected with vegetable products that requires to be thoroughly worked out by some qualified person or persons resident in the districts where the plants grow.

COMMENTARY.

THE SALE OF TEA BY CHEMISTS.—The *Grocer* of last Saturday has an editorial in quite a Jingo strain in respect of our innocent article in the *DIARY* on "The Tea Trade." It is described as "an ambitious attempt to instruct chemists how they may not only sell blended teas, but also blend for themselves." It appears that grocers "devote years of hard work" to the study of this art (or is it a science?) of blending teas, "and find, even then, that their knowledge comes none too easily." We really did not know that our grocerial friends were such a dull lot—"Years of hard work" to learn how to mix equal parts of Assam Pekoe and Ceylon Pekoe, and scarcely get to understand the business when the severe strain of the study has made their heads bald! And now chemists and druggists can learn all about it in half an hour. It is indeed a revelation. And what a testimonial, too, to the quality of our *DIARY*! For the "organ of the trade" has evidently been through the article with Sam Weller's double-million-power magnifying-glass, and does not record the discovery of the shade of an error. And then the gentle *Grocer* man—who must be a new hand—proceeds to advise his readers to restore the balance by selling patent medicines. His own paper has been giving more or less accurate advice on that subject for years; and

now he has discovered the opening. Verily it does take a mind, as Hosea Biglow says, "as big as all out-doors, To make out it looks like raining, After once it fairly pours."

OUR KIN BEYOND THE SEAS.—We always felt a kindly disposition towards the *Oil, Paint, and Drug Reporter*, but during the last three or four years we have watched its course with feelings of positive affection. Our contemporary is published in New York, and when its exchange copy reaches us, and we peruse its pages, it feels so like an intellectual communion with the copy of our own journal which crossed the broad Atlantic four weeks previously, to yield its young life to the capacious scissors of the *Reporter's* sub-editorial staff. Not that the *Reporter* resembles our own departed one in outward shape. Nothing of the kind. Instead of a well-filled body, decently clad in a neat garb of yellow, it presents a lanky and smudged appearance, and the coat of its advertisements hangs in tattered shreds over the attenuated bones of its literary contents. But when we cut it up we are certain to find its pouch crammed with the undigested body of our own offspring. The quantity of *CHEMIST AND DRUGGIST* which we recovered from this week's *Reporter* measured 124 inches in length, though we must say that our contemporary always returns grace for its meal in the shape of ample acknowledgment. We have tried to calculate how many times the accumulated meals which our friend has taken off *THE CHEMIST AND DRUGGIST*, if pasted together, would stretch from Cannon Street to New York and back again, but we had to give it up. There is a grim joke that at the time of the American War of Secession a Southern journal sneered at its Northern foes by insinuating that their dead bodies left on the battlefield were turned to useful account by manufacturing tallow candles out of them. The other side promptly admitted their disadvantage in that respect, explaining that the Southern bodies were too ill-developed to be of any use at all. This is precisely the reason which prevents us from taking an occasional meal off our dear friend from New York.

THE DISTRIBUTION OF CARBOLIC ACID.—The following is clipped from a cash price-list issued by "The Hayward's Heath Agency of the Sussex Co-operative Drug Company (Limited)":—

Carbolic Acid—

Light Yellow, good quality and strength, in 8-oz. bottles.

8d. each. In half-pint champagne bottles, 1s. each.

Per gallon, 4s. (jars 1s. extra, allowed on return).

Brown, for Drains, Stables, &c., 2s. 9d. per gallon (jars, 1s. extra, allowed on return).

„ in pint champagne bottles, 8d.; quarts, 1s

There is nothing at all illegal in sales thus made. The Privy Council have refused to recognise the poisonous character of carbolic acid, and though some forcible arguments—corpses and that sort—could be produced in opposition to the opinion, "The Hayward's Heath Agency of the Sussex Co-operative Drug Company (Limited)" is still at liberty to consider that champagne bottles are the most suitable vessels in which to supply this popular beverage.

ANTI-CUTTING.—The Association of Manufacturers and Dealers in Proprietary Medicines in the United States is a flourishing institution. Last year it is represented to have done business to the extent of \$20,000,000, and to have spent half of that on advertising. The association is opposed to cutting, and does not supply those who do cut.

THE INFLUENZA EPIDEMIC.—A Vienna medical correspondent says there are three varieties of this fever:—(1) The

symptoms are purely nervous, such as headache, pains in the limbs, and neuralgic pains in trunk, as in pleuritis. The respiration and pulmonary mucous membrane normal, as well as alimentary canal. This form is the most common, and has on many occasions been diagnosed as typhoid. (2) The catarrhal form: bronchial catarrh, sneezing, continuing several days after the fever subsides. (3) Gastric: catarrh of the alimentary tract with persistent vomiting. Besides these a great number of other symptoms are common to all, viz, giddiness, hyperæsthesia, &c., which soon disappear. The temperature rises rapidly to 104° to 105° F.; continues at this about two days, and rapidly falls. The duration of the fever is usually three days; seldom five or six. The incubation period is two days. Very little alteration of the spleen is observed. Quinine has proved to be the best remedy, and there has been quite a run upon it in Vienna.

THE HALF-PRICE CLOSED LETTER COMPANY (LIMITED). We have had several letters from correspondents who have agreed to act as agents for this company, and who complain that they are not able to get stocked with the stamped envelopes for sale. In reply to a request for further information which we made last week, we have received other letters, not all expressing dissatisfaction. We have also made inquiries at the office of the company, where, it is fair to say, information has been given to us as frankly as we could have expected. We have ascertained beyond doubt that the business carried on is unquestionably a *bona-fide* one. But some chemists who have agreed to take the agency have been supplied with envelopes, and others have not yet been able to get any stock. The explanation of this is that the envelopes can only be sold at a profit with a sufficient supply of advertisements. The company naturally give preference to those agents who assist them in getting advertising business, though they hope in good time to supply others as well. The company show us the account of one chemist in a moderate-sized town in the Midlands, who has got for them 27*l.* 10*s.* worth of local advertisements, his commission out of this item alone amounting to between 4*l.* and 5*l.* Of course we cannot tell whether the company is doing a profitable business or not. Its ultimate success, it is obvious, will depend largely on the work of its agents.

SALICYLIC ACID.—We hear from one source that there has been an increased demand of late in the metropolitan district for natural salicylic acid and the sodium salt prepared from it; strange to say, this demand does not appear to be universal, for one leading firm who have dealings with the best pharmacists in the three kingdoms have recently sold 7 lbs. natural salicylic acid and 15 lbs. natural sodium salicylate in the same time that 2½ cwt. of Kolbe acid and 8 cwt. Kolbe sodium salt were sold. It would be interesting to learn if the dialysed acid and its sodium salt are much used, and if they differ from the natural in action.

CORRECT SCALES.—The Weights and Measures Act of 1889, which will come into operation on January 1, requires among other things that all weighing instruments for use in trade, from the weighbridge to the dispensing scales, and probably to analytical and assay balances, for it may be held that these are used in trade, shall be verified and stamped within the then following twelve months. Traders using unstamped scales of any kind after January 1, 1890, will be liable to a penalty not exceeding 2*l.*, for a second offence of 5*l.*, and in cases of fraud to imprisonment, and, if the Court thinks fit to order, to special publication of the conviction. Inspectors are to be examined as to their fitness for their duties, and the tariff of fees for verification and stamping is

advanced. Regulations with regard to procedure are to be made by local authorities with the approval of the Board of Trade, so that at present we do not know what will be regarded as legal accuracy, but it may probably be assumed that the majority of the scales now in use, and which have been in use for any considerable time, unless it be those of the best quality with steel or agate bearings, will be condemned. Of course in future manufacturers will have their scales verified and stamped before they sell them.

SAFE TO TAKE.—An evening newspaper says that Warner's "Safe Cures" are to be a feature at several of the London and provincial pantomimes this year. One of the harlequinade scenes will show the outside of a chemist's shop, with gigantic poster by the side of the window enumerating the virtues of the "Safe Cure." Enter two clowns, one of them evidently in the last stage of disease and doubled up with pain. The other points out the poster to him. A ray of hope illuminates the sufferer's features, and his companion enters the shop, presently dragging out a monster bottle, a *facsimile* of the "Safe Cure" bottle, with a tap near the base and standing nearly 9 feet high. Beneath the tap the sick clown is laid on his back, with his open mouth exactly under the vent, and the tap is turned on. Sundry electric kicks from the patient, increasing in vigour as the physis flows down his throat, denotes that it is working with effect, and presently the clown springs up and executes a series of lively tumblers all over the stage to indicate that he is completely cured. All this business, of course, takes time, and it is in the contract that so many minutes shall be given at each performance.

MESSRS. PARKE, DAVIS & Co., of Detroit, send us a calendar with a weird but beautifully executed design on it, representing a Japanese crab and lobster fight, the combatants being backed by a couple of gnomes. The battle takes place on the seashore, and the full moon is just rising. We were just wondering where the appropriateness of the design came in when we turned to Messrs. Parke, Davis & Co.'s note, and found that they expressed the hope that the spirit of the design might be the direct antithesis of the animus which shall pervade our future relations.

THE SCOPOLA RESEARCH.—Professor Dunstan mentioned last week that one of the reasons why he brought forward the communication on *Scopola carniolica* then was a notification that Professor Schmidt was working on the subject. It may be of interest to add that the latter Professor made the notification at the German Science Congress in September last—indeed, he then communicated the results of the research on *Scopola tropoides* (the same as *S. carniolica*) by his pupil Finzelberg, who found hyoscyamine and hyoscyne in the root. We hope to give full particulars of Finzelberg's paper shortly, when it will be seen how far the English workers have corroborated his results.

Legal Reports

MR. J. F. LEESON v. THE GENERAL MEDICAL COUNCIL.

MR. LEESON, physician, whose name the General Medical Council, at their last session, resolved to strike off the Medical Register, on the ground that he had been guilty of infamous conduct in a professional respect by acting as cover for C. B. Harness, an unqualified person trading in connection with the Medical Battery Company (Limited), applied on Friday last by counsel to Mr. Justice North, in the Chancery Division of the High Court, for an order to restrain the Council from removing his name from their

register of general practitioners until the trial of the action, and from publishing resolutions passed by them on November 28 to the effect that he (Mr. Leeson) had been guilty of infamous conduct in a professional respect, or their direction to their registrar to erase his name.

For Mr. Leeson it was argued that the inquiry which had been made on behalf of the Council into his association with Mr. Harness and the Company was bad for several reasons—that their own rules had not been complied with; that the inquiry was (as they said) as to whether Mr. Leeson had covered Mr. Harness in acting as medical electrician—a matter he had a right to do; that it was directed against Harness while professedly made into the conduct of Leeson; and that two of the judges were incapacitated so as to vitiate the whole inquiry, because they were members of the Medical Defence Union.

Mr. Justice North said the inquiry as to whether Mr. Leeson had acted as cover for an unqualified person to act as a registered practitioner was a matter in which the Medical Council were alone the judges, and which he could not judge of subject to their acting regularly and *bonâ fide*. He discussed the various irregularities alleged, which were that the Council had made a new standing order on the very day of the inquiry; that the mode of conducting the inquiry laid down by the Council's standing orders had been departed from by allowing the solicitor of the Medical Defence Union to take it up at a certain point; that certain matters had been before the Council in the inquiry that were not evidence; and that the judicial proceedings of the Council were invalidated by reason of two members out of some thirty who sat on the investigation being interested parties. If they were interested, it was clear law that the proceedings would be invalidated; but was it necessary that their interest should be a pecuniary interest for that result to follow? In this case the two members of the Council were subscribers to the Medical Defence Union of 10s. a year, and were under a guarantee to that society, the society being, in fact, the prosecutors. To consider the effect of this argument, his lordship looked at the objects of the union, which comprised not only the prosecution of unregistered practitioners and the removal of persons guilty of unprofessional conduct, but the protection of practitioners. They were perfectly impartial; their duty as members of the union was as much for the protection of Mr. Leeson as a qualified practitioner as to have him removed if he ought to be removed. This point of law, therefore, his lordship decided in favour of the defendants. He also concluded that the proceedings were not invalidated by the other alleged irregularities. There was one other point. It had been argued that the inquiry was not *bonâ fide* because the acts and conduct of Harness had been gone into, and it was said the inquiry was not really into Leeson's conduct so much as to Harness's. That was so in a sense, but it was necessary and proper to inquire into Harness's acts for the purpose of seeing what it was that the accused was acting as a cover of; and that being so, he could not say the inquiry was not *bonâ fide*. His lordship therefore refused the motion.

BANKRUPTCY REPORTS.

Re CHARLES TYRRELL, 14 Bevis Valley Road, Southampton.

THIS debtor, who was recently prosecuted by the Pharmaceutical Society for infringement of the Pharmacy Act, and against whom a receiving order has since been made, has appeared before Mr. Registrar Daw at the Southampton Bankruptcy Court on December 12 (having failed to appear on the previous Thursday) for his public examination. The statement of affairs showed an indebtedness to unsecured creditors of 146l. 10s. 6d., and assets estimated to produce 20l. The failure is alleged to have been caused through the action brought by the Pharmaceutical Society and losses in wholesale trade. The Official Receiver reported that the debtor began business in January, 1889, as a drug dealer, with a capital of 250l. He was not, however, qualified to sell drugs, and paid 10l. a year to a duly-qualified chemist for the use of his name. The Pharmaceutical Society took proceedings against him in October last, and they are now entered as unsecured creditors for 44l. 12s., the amount of fines which they

recovered against him and their costs. At the examination Mr. R. R. Linthorne appeared for the debtor, and Mr. A. W. Pearce for Mr. Dowdall, a creditor. In reply to the Official Receiver (Mr. J. C. Moberly) the debtor repeated substantially the report quoted above. He said he had been a partner with Mr. W. E. Moffatt, a qualified chemist, of Needham Market. He (the debtor), not being qualified, agreed to pay 2½ per cent. on the profits, or at least 10l. per annum, for the use of his name. The business was called the St. Luke's Drug Stores, and Mr. Moffatt's name was over the door. He had paid about 3l. to Mr. Moffatt. Messrs. S. Maw, Son & Thompson issued a writ against him before judgment was pronounced against him at the suit of the Pharmaceutical Society. He defended the action brought by the Society solely with the hope of getting the penalty reduced; he knew he was liable to a fine. An execution was put in, and he sold part of his goods to pay it out. The under-sheriff took possession, Mr. White, jun., being called in to value the furniture, and he purchased it himself. The Registrar, learning that the debt and costs were under 20l., supposed it was not necessary to sell by public auction. The Official Receiver questioned whether he ought to have sold to himself. The Registrar said the question arose, in the event of the debtor's statement being true, whether Mr. Moffatt was not a partner, and liable for the debts of the firm. He could not lend the sanction of his name for 10l. a year without running certain risks. The debtor stated that Mr. Moffatt had a letter of his in which he said, though he took him into partnership, he would not hold him liable for the debts. The Registrar intimated that the law could not be defeated in that way, and he directed the debtor to produce the letters he had had from Mr. Moffatt. The Official Receiver asked for an adjournment, in order to ascertain what debtor's interest was in his father's estate, and to find out if any liability attached to Mr. Moffatt. The application was granted till December 31.

Re ROLAND FINCH, 103 Boleyn Road, West Ham, and Silvertown Chemical Works, Victoria Docks, E., Chemical Manufacturer.

THE first meeting of creditors herein was held on December 13, before Mr. C. J. Stewart, Assistant Receiver. The particulars of the failure appeared in our last issue, the accounts showing gross liabilities amounting to 28,187l. 13s. 5d., of which 9,977l. 18s. are unsecured, and assets valued at 8,116l. 17s. The following are the principal creditors:—

Unsecured.

	£	s.	d.
Ayliffe, Frank, Caistor Park Road, West Ham ..	105	6	0
Brandrum Bros., 5 Philpot Lane, E.C. ..	12	6	0
Chapman, Spencer & Co., 36 Mark Lane, E.C. ..	629	9	11
Drake & Lipscombe, Stratford ..	22	8	6
Davis, G., Son & Co., 80 Coleman Street, E.C. ..	475	0	0
Dunkelsbuhler, A., 7 Great St. Helen's Place, E.C.	37	10	0
East London Waterworks, 15 Great St. Helen's Place, E.C. ..	34	16	6
Harrison, J., & Co., 66 Mark Lane, E.C. ..	66	6	7
Hitchcock, W., King's Lynn ..	240	0	0
Knight, H., 59 Mark Lane, E.C. ..	573	18	8
Lindley, C., & Co., 34 Englefield Road, N. ..	17	13	11
Lipman & Co., Dundee ..	102	19	11
Levy Bros., 63 Mark Lane, E.C. ..	476	11	3
Leslie, W., & Co., Aberdeen ..	50	0	0
May, T., Stratford ..	31	6	7
Mann, G., & Co., 70 Gracechurch Street, E.C. ..	11	12	9
Moller, Groetz & Co., Billiter Square Buildings, E.C. ..	69	13	6
Marbyn, G., & Co., Wardbridge ..	99	1	8
Minet, Harvey & Smith, 4 King William Street, E.C. ..	14	19	6
Patterson, F. H., Victoria Docks Road, E. ..	77	6	
Sherwin, G. E., Birmingham ..	19	10	0
Smith, H., 36 Mark Lane, E.C. ..	16	15	9
Stanbury, F., Silvertown Chemical Works, E. ..	24	11	6
Vandome, Titfordes & Co., 53 Leadenhall Street, E.C. ..	10	18	5
Ward, G., & Sons, 22 Bear Lane, E.C. ..	12	14	0

Fully Secured.

Chapman, Spencer, 36 Mark Lane ..	11,568	1	8
Jermyn, Alfred, King's Lynn ..	5,258	4	4
Scottish Widows' Fund, Cornhill ..	49	4	0

List D Liabilities.

	£	s.	d.
Cornwell, Son & Hewitt, 26 Crosby Buildings, E.C.	201	15	5
Jermyn, A., King's Lynn	6,636	2	2
Bunkell, H. C., Alexandra Villas, Finsbury ..	244	14	0
Dunkelsbuhler, B., 7 Great St. Helen's, E.C. ..	462	10	0

Preferential.

Ayliffe, F., Caistor Park Road, West Ham ..	155	6	0
Patterson, F. H., Victoria Docks Road, E. ..	127	6	0
Stanbury, F., Silvertown Chemical Works, E. ..	54	6	6
Tapp, A., 15 Great George Street, Westminster	40	7	6

Mr. Hatchett Jones and Mr. Styer attended for creditors, and Mr. Davis on behalf of the debtor.

In dealing with the proofs that had been tendered, a discussion arose upon that made by Mr. Jermyn, when the Chairman stated that the debtor had been examined by the Official Receiver. It had been alleged that there had been a sort of *quasi*-partnership between the debtor and Mr. Jermyn, but, so far as the Court could ascertain, there had been an agreement under which the two gentlemen engaged in a joint venture to buy the business for the purpose of floating a company. That agreement did not appear to be in the nature of a partnership in any way. On behalf of Mr. Jermyn, attention was drawn to the fact that bills were given by the debtor at the time the advances were made by Mr. Jermyn, and eventually the Chairman admitted the proof.

Mr. Stewart next stated that, although the order was made on November 1, the meeting of creditors had been postponed owing to the delay in the filing of the statement of affairs. In the meantime the debtor had assisted in disposing of a portion of the stock, for which good prices had been obtained. The sales during the time had only amounted to between 200% and 300%, but the estate had not been in any way damaged by the delay. The debtor had been called upon to furnish a deficiency account, but had not yet complied with the order.

Mr. Davis said the account was now prepared and would be filed without delay. He was instructed to propose on behalf of friends of the debtor to purchase the English assets for a sum of 2,750%, to be paid into the court within a month. The French assets were to be assigned to a trustee, and when realised were to be devoted in half shares, one half to be given to the purchaser of the English assets, and the other to the creditors. In consideration of that offer, the debtor to be released from the proceedings.

The Chairman thought it hardly worth while to put such a proposal to the meeting. The statement showed stock-in-trade to the value of over 4,000%, and the creditors were asked to accept something over half that sum, and then to give the debtor an immediate discharge from his liabilities. The offer was not at all satisfactory, and he was sure that the Official Receiver would not be able to report it to the Court as a reasonable proposal.

After some discussion it was resolved to wind up the estate in bankruptcy. Mr. Walter Winder Feast, 6 Eastcheap, was appointed trustee to realise the estate, and Mr. Henry Knight, Mr. A. Jermyn, Mr. H. Smith (representing Mr. Spencer Chapman), and Mr. S. Jacobs were elected as a committee of inspection.

*Gazette.***PARTNERSHIPS DISSOLVED.**

- Creed, T., & Carter, H. B., Greenwich and New Cross, medical practitioners.
- Elieson, C. P., & Bobinsky, S. (under the style of the American Dental Manufacturing Company), Poland Street, Oxford Street, W., dental material manufacturers.
- Lamb & Lidiard, Kingston-upon-Hull, surgeons, physicians, and accoucheurs.
- Lush & Helsdon, Ffield and Weyhill, physicians, surgeons, and apothecaries.

THE BANKRUPTCY ACT, 1883.**RECEIVING ORDER.**

Roe, William Sleath (trading as the Midland Brush Manufacturing Company), Market Harborough, brush maker.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

- Gray, John, Birmingham, dentist—Jan. 2, 25 Colmore Row, Birmingham; Jan. 13, County Court, Birmingham.
- Ridout, George Vatchel, Leeds, surgeon-dentist—Dec. 20, Official Receiver's offices, Leeds; Dec. 31, County Court House, Leeds.

ADJUDICATIONS.

- Finch, Roland, Boleyn Road, West Ham, and Victoria Docks, late of Margery Road, Forest Gate, chemical manufacturer.
- Holey, George, Beverley, botanic and electric practitioner.
- Lloyd, David, junr., Shanklin, surgeon.
- Thompson, James Andrew Baird, Totnes, doctor of medicine and surgeon.

ORDERS ON APPLICATIONS TO APPROVE SCHEMES.

- Alewood, Edwin, Swansea, chemist and druggist—composition of 5s.
- Roberts-Dudley, Frederick John, Stalybridge, surgeon—composition of 5s.

NOTICES OF DIVIDENDS.

- Briggs, Joseph, jun., Lichfield, late of Bradford, mineral-water manufacturer—first and final div. of 2s. 0½d., Dec. 20, Official Receiver's offices, Wolverhampton.
- Hanna, William Alfred Kingston, Coventry, surgeon—second and final div. of 1s. 6d. (4s. on new proofs), Official Receiver's office, Coventry.
- Kelsey, William, Barnsley, dealer in drugs and patent medicines—first and final div. of 9s. 2d., Dec. 20, Official Receiver's office, Barnsley.

APPLICATION FOR DEBTOR'S DISCHARGE.

- Steadman, George, Sheffield, botanist—Jan. 23, County Court hall, Sheffield.

ORDER MADE ON APPLICATION FOR DISCHARGE.

- Waller, Walter Kerr, Penzance, chemist and druggist—unconditional discharge.

EXTRACT FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Bingham, Robert, Market Place, Kirton-in-Lindsay, chemist and druggist and wine and spirit merchant. Trustee: James Saltmer (Lofthouse & Saltmer), 12 Market Place, Hull, manufacturing chemist. Date, Dec. 16; filed, Dec. 17; unsecured liabilities, 883%. 12s. 6d.; estimated net assets, 383%; creditors fully secured, 99%.

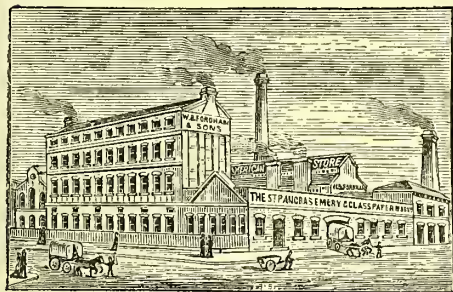
	£	s.	d.
Albion, E. & H., Hull	42	18	8
Allsopp, S., & Son (Limited), Burton-on-Trent	74	1	0
Battle, Son & Malby, Lincoln	15	4	11
Blundell, Spence & Co., Hull	28	0	0
Dunville & Co., Belfast	29	13	0
Evans, Lescher & Webb, London.. ..	14	6	5
Hill, T., Kirton-in-Lindsay	11	1	8
Henderson, J., & Co., Hull	10	5	2
Lawman, J., Kirton-in-Lindsay	35	0	0
Lofthouse & Saltmer, Hull.. ..	53	4	3
Middleton & Son, Hull	34	4	10
Nicholson, J. W., & Co., London	19	9	7
Oldfield, Pattison & Co., Manchester	16	3	5
Pearson, H., Kirton-in-Lindsay	14	7	9
Sissons Bros. & Co., Hull	25	1	6
Smith, Ellison & Co., Gainsborough	56	16	4
Wilson, Mrs., Lincoln	300	0	0

FLESHY FUNGI.—Those who are interested in the preservation of fungi will find a practical article by M. C. Cooke and G. Masee on the subject in the November issue of the "Kew Bulletin."

OUR TOWN TRAVELLER.

THE HOME OF THE "MONKEY BRAND."

The heavy air hung thick and muggy over the slope of Pentonville Hill as through the grimy valley of King's Cross our Town Traveller sought out the dwelling of the "Monkey Brand." This intelligent foreigner has his British headquarters at the sign of W. B. FORDHAM & SONS (LIMITED), in York Road, and his diggings are faithfully depicted here.



About three years ago Messrs. Benjamin Brooke & Co., of Philadelphia, who had already established a flourishing trade in their speciality in the States, commenced to attack the European market, and placed their principal agency in this country in the hands of the Messrs. Fordham. At that period the "Monkey Brand" was altogether unknown in this country. One could scarcely ask for a better proof of the value of judicious and intelligent advertising than the fact that at present Messrs. Fordham are selling the soap at the rate of several thousand cases of 100 boxes each per month. It is now, in fact, one of the most important specialities of the house, which is saying a good deal, as the number of the commodities now quoted in the firm's catalogue numbers over three thousand. The present colossal trade of the establishment has grown up from a very modest beginning made about sixty years by Mr. Isaac Fordham, the grandfather of two of the present managers of the concern. At that time the business of the firm, then located in Kirby Street, Hatton Garden, only embraced a few specialities such as glue, emery-cloth, and black-lead, all of which still form staple goods of the house. Now the York Road works contain over an acre of floor-space, and additions are still being made from time to time. About four years ago the business was turned into a limited company, and it is now managed by three Messrs. Fordham (descendants of the founder) and Mr. F. T. Burden, who in former years did a good deal of travelling for the firm, and is well known to scores of country chemists whose proclivities are not too professional to preclude them from handling the many saleable and useful domestic appliances which Messrs. Fordham place upon the market. Mr. Burden attributes the success of the company principally to the fact that the managers have all grown up in the business and are acquainted with all its details. "We don't go in for lords and guinea-pigs upon our Board," was his plain-spoken observation; and, in fact, the goods offered by his firm are essentially such as appeal to the million.

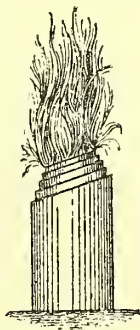
SOME OF THE NOVELTIES.

Among the articles exhibited in the firm's show-room our attention was attracted specially to the dishes, basins, and vases made of "steel pulp" at Thetford, in Norfolk. This "steel pulp" is a patent preparation, which combines lightness with elasticity to such a degree as to be specially adapted for the manufacture of basins, flower-vases, toilet sets, and so forth; and it is also used with success for door-plates, crumb-trays, plaques for painting, in lieu of terra-cotta plates, and a variety of other purposes. The sixpenny "Jack Frost" packets of ground mica, for Christmas-tree decoration, are enjoying a particularly brisk sale just now, and there is also a strong demand for camphor in penny blocks, which the firm are having specially made for them. "Lepage's liquid glue" and "Herbert's family glue-pot" are also established favourites,

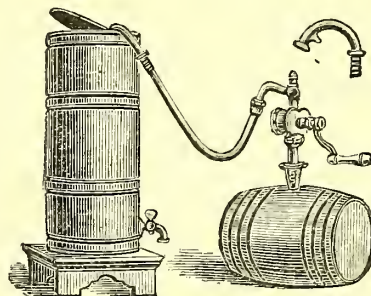
the former article being now specially put up for sale in stands of three 1s. and eight 6d. bottles. Small $\frac{1}{2}$ oz. blocks of beeswax also enjoy a considerable sale, and the demand for Putz powder, stove-polish, and Brunswick black, and dozens of other handy articles for sale over the counter, is growing very considerably. A new opener for aerated-water bottles was shown to us, the sale of which has largely exceeded expectations. The process is very simple, the stopper being forced down into the bottle by the action of a hollow tube fixed on to a lever, the liquid passing into the glass through the tube, and out of an aperture half way down the lever. These openers are sold in three qualities—lacquered at 4s., bronzed at 8s., and nickelled at 12s. per dozen. Cheap menthol cones are now, we understand, being added to the firm's specialities, the specimens shown to us being of the vase shape hitherto prominently connected with the name of Mr. A. W. Shirley. Perfumery, in nicely got-up small stone jars, sold in boxes of one dozen, is also put up for sale in this department.

Medicated paper is another important article of the firm's trade, and they carry a large selection of it; one of the best qualities, made of rye-grass, being put up in cardboard boxes to retail at 1s. 6d. Buyers of one-gross packets can have their names placed on the cover.

The magic fire-lighter is another cheap and handy article for counter sale. It is made of light wood impregnated with resin, and sells in small boxes of one-dozen, one lighter, along with a few sticks, sufficing to kindle a fire.



THE MAGIC LIGHTER.



THE HAND ROTARY PUMP.

The hand rotary pump has just been reduced in price for both sizes, the larger one having a capacity of 13 and the smaller one of 10 gallons per minute. The suction-pipe of the pump is kept rigid in the keg or barrel by means of a holder in the shape of a tapering sleeve, with outside worm, which can be applied to barrels of any size of bung between $1\frac{1}{2}$ inch and 4 inches in diameter.

ENAMEL PAINT AND EMERY PAPER.

A walk through the extensive manufacturing and store-rooms at the rear of the premises revealed an enormous stock of Aspinall's enamel, both in the full-sized and in the half-sized tins. Our guide spoke quite enthusiastically of the growth of the demand for these enamels, in which Messrs. Fordham claim to be the largest dealers, their average stock amounting to about 200,000 tins, representing a value of some 15,000*l.* Another article which has had a phenomenal sale last season is the "Demon" beetle-trap, in which the gentle insects are lured to destruction on the same system which is occasionally adopted to catch tigers, viz. by baiting them on to a surface which gives way under their weight and precipitates them into the pit below. The sales of these traps this year are said to surpass the combined sales of the ten previous seasons.

Passing through the rooms devoted to the manufacture of glass-paper, where several employés were busy applying hot glue to stout paper, then lightly passing ground-glass over the sheets, placing them on hot plates, and finally drying them on lines across the room, and the apartment where emery cloth is prepared in much the same manner, we reached the carpenters' shop, where men are busy constructing cases for the packing department. Thence we proceeded through yards of space filled with brushware, glue (of which a stock of 150 tons is always kept on the premises), gelatine, and American woodwork, to the town department, where the

London orders are got ready. Messrs. Fordham employ twenty horses in the delivery of their goods in the metropolis, while railway-vans are busy in the yard below carrying away goods for the country and abroad. In the shipping department a heavy order for glue and enamel paint was just being prepared for shipment to Algoa Bay, while a number of packages of assorted goods were ready packed for despatch to Australia, a buyer from the Antipodes having visited the establishment a few days previous and handed in an order which was considered large even for an Australian firm—big orders being the rule from that quarter. With South America, too, Messrs. Fordham have a prosperous and increasing trade, and even the Canadian tariff is no insurmountable obstacle to their invasion of the Dominion. Even in this department there is room for a novelty, the material which is used for packing being a patent wood-wool, which combines great toughness with remarkable lightness.

WHERE THE NOVELTIES ARE GOT.

Upon our return from our round we inquired from Mr. Burden whether the firm found any difficulty in keeping up a sufficient supply of novelties for so large a trade as theirs. The reply was that they always had what almost amounted to a superfluity of new ideas brought before them. Their experience in the business enabled them nearly invariably to judge correctly whether an idea would take, and therefore they had few failures among their novelties. Mr. Burden then went up to the large American safe in a corner of his private room and brought out a huge bundle of papers, which, he explained, consisted of agreements with inventors who sold their ideas to Messrs. Fordham, the latter bringing them out in a marketable shape, and the former receiving a royalty upon the sale of each article. Many of their novelties, as might be supposed, hail from America. "They have such clever mechanics there," said Mr. Burden, though he qualified this by adding that they had been gratified to find how, during the last three or four years, the British mechanics had made immense progress in adaptability and readiness of resource. From Germany they got very few saleable novelties, and from France practically none, the French notions of profit being generally too high and altogether out of proportion to the willingness to run any risk in creating trade. A few minutes more of conversation brought our representative's visit to a close, and presently he found himself once more struggling in the outer darkness and groping his way to the station through the murky pall of grime and fog.

A NEW AËRATED-WATER PLANT.

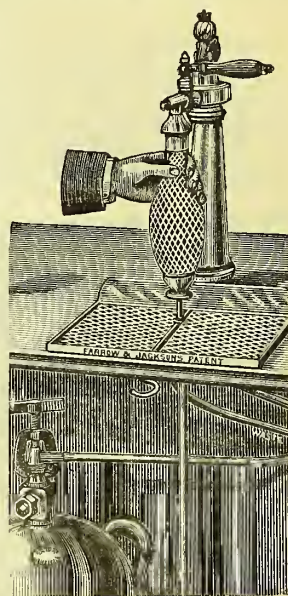
Mr. WILLIAM HUDSON, affectionately known among his "pals" by the sobriquet of "Billee," is established in the vicinity of Eastcheap as a wine merchant and taster, and in those capacities enjoys a very high reputation among the trade. He has lately also turned his attention in a non-alcoholic direction, and the other day was discovered by our representative holding forth in alternate sentences on the iniquities of our licensing system, the efficacy of lithia as a gout-assuager, and the wonderful merits of a new counter-fountain. The two former subjects are incapable of illustration in these columns, but we have secured a block of the last named, and are happy to furnish the following particulars, which, after considerable trouble, we have unravelled from out the somewhat entangled skeins of Mr. Billee's conversational *flux de bouche*:—

It is well known that in the Eifel Mountains in Central Germany carbonic-acid gas issues in immense volumes from the volcanic soil. This gas is caught in chambers, condensed under high pressure to a liquid consistency, and bottled up in strong iron cylinders of varying sizes, up to about four feet in height, and capable of withstanding a pressure of 3,750 lbs. to the square inch, in token of which they are stamped with the Prussian eagle, as a kind of Solomon's seal.

"You see here," interpolated Mr. Hudson, lucidly, by way of comforting our representative, "if that wasn't so we'd all be blown to smithereens." The company which it was proposed to form at the time of our representative's visit, and of which a prospectus is now, we understand, about to be issued under the style of the "Volcanic Aëration Company (Limited)," intends to furnish chemists and applicants gene-

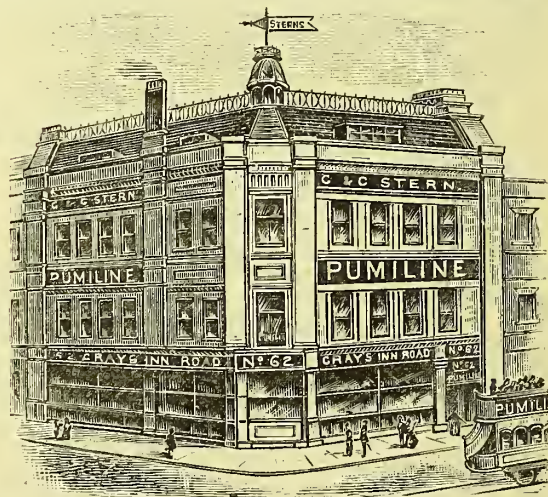
rally with the plant here illustrated, along with a rocking holder for mixing the carbon dioxide and the liquid, for the annual rent of 8*l.* 8*s.* They will also refill the flasks of liquid carbonic acid at the charge of 15*s.* per large flask. It is said that such a flask furnishes enough carbonic acid gas to aërate up to about 180 dozen bottles of ordinary size. A sufficient quantity of the carbon dioxide (which, of course, emerges from the flask as a gas, though within it is held compressed into a liquid state) is introduced into the rocking mixer to aërate the capacity of the latter, that is to say, about 5 gallons. The container is vigorously rocked for a short time, and the liquid drawn up through the counter-fountain shown in the illustration, so that each bottle or draught may be drawn separately as required. The novelty claimed for the counter-fountain is that the bottle is clasped from above and below by a cup-shaped metal arrangement, the lower of which rises along

with the bottle, and keeps it firmly to the mouth of the tap, thus avoiding much loss of material, though we must say that a certain amount of waste still exists. The advantages claimed for the liquefied carbonic acid gas are cheapness, simplicity, compactness, purity, and avoidance of steam-power and other drawbacks of the sulphuric acid and whitening system. On the other hand, it is only fair to state that the German bottled gas is by no means a novelty. A few years ago a paper was read upon this subject at the Society of Chemical Industry, and we understand that since then efforts have been made—apart from the promoters of the present company—to introduce the gas into England, but without success. Lager beer is aërated in Germany by means of this gas, and we hear that in London the Aërated Bread Company are thinking of adopting it in their manufacture.



THE PUMELINE PRODUCTS.

A few days ago our Town Traveller in his wanderings found himself branching off from Holborn into the Gray's Inn Road. While mentally congratulating himself upon the change which the last few years have wrought in the appearance of that now noble thoroughfare, he became conscious



of an odour calling up pleasant memories of German mountains and Bournemouth chimes. Looking up, our

man's attention was arrested by the word "PUMILINE," in white lettering, on the ground-floor window of what an auctioneer's catalogue might describe as a "five-storied, red-brick mansion of imposing aspect." Two minutes later that traveller occupied a chair in the private office of the head of the firm of G. & G. Stern, late of Billiter Square, but now the lessees of the aforesaid mansion.

"We are not yet altogether in full working gear," the proprietor of the business commenced; "for instance, our soap trade is increasing so quickly that we have found it necessary to order two new soap-mills in addition to the one already at work in the basement, and two departments upstairs are still partly in the hands of the carpenters and fitters; but all the same our present place is a great improvement upon Billiter Square, where we could not do any manufacturing at all. Now we make nearly all our goods on the premises, and we contemplate one or two important additions to our list in the near future. But before taking you over our place I would just like to show you, by way of curiosity, our book of testimonials from people who have used our preparations and been benefited by them."

Experience has taught our representative to be sceptical with regard to testimonials generally, but it is only fair to say that a perusal of the bulky volume placed before him revealed the signatures of many medical men of good standing, and of some celebrities in unmedical walks of life.

ATTILA, THE STRONG MAN,

and Sandow's, another Strong Man's trainer, sends a Hunnish scrawl of appreciation, which should "boom" the Pumiline liniment in sporting circles. Pumiline, as every chemist knows, or ought to know, is the fancy name under which Messrs. G. & G. Stern have introduced their particular make of essential oil from the Pumilio Pine of the Tyrolean Alps. Pine-needle oils have of recent years attained a high degree of favour in medical circles as a remedy in affections of the chest and the respiratory organs, rheumatism, and other complaints, and a large share of that rising popularity is due to Messrs. Stern's efforts. In the room adjoining the general office the preparations compounded in other parts of the building are packed ready for sending out, and in that department as, indeed, throughout the place, the employés are exceptionally busy just now, winter being the principal period for the consumption of Pumiline goods. The head of the firm here called for a "doctor's sample," which proved to be a neat wooden box about 10 inches square, containing an ordinary-sized package of each of the six preparations, a small atomiser, and a bundle of Pumiline literature. Such a box is sent to every medical man who cares to ask for it. "We reckon that, including the postage, a doctor's sample costs us about 6s., because we do not send out small vials with merely a suspicion of the preparations, but our ordinary bottle, which will leave the medical man no excuse for not putting our goods to a practical test." The record kept of these "samples" showed that during the second half of 1888 no fewer than 4,044 had been despatched. To this free-handed sampling of their goods Messrs. Stern attribute much of their success, and they express themselves gratified with the manner in which the medical profession have taken up the articles. Asked whether they had met with any trouble in the way of imitations of their goods by the drug trade, our guide answered that there had been a few cases in which chemists had proved to be unaware that

"PUMILINE" IS A REGISTERED WORD,

but so far there had been no serious trouble in that direction. The firm acknowledge that they must always encounter a certain degree of competition of other pine-oil essences, but they are not afraid of that. During this conversation we had reached the second floor, where the raw goods are stored. The essential oil is distilled and tinned in Austria, where the firm own an establishment at the foot of the mountains on whose crests the pine shrubs are gathered. The trees grow wild, and the distillers purchase the right to collect the needles from the Government, who in these parts, Mr. George will be glad to hear, are the owners of the soil. The best shrubs for distilling purposes grow above the snow-line. Their tops are lopped off by the collectors when the plants are from 2 feet to 3 feet in height, and they are then left to shoot again, the shrub yielding a fresh harvest every fourth year.

From seven to nine shrubs of average size are required to produce 1 oz. of essential oil. The distillate is put up in canisters holding 5 kilos. each, ten of which go to a case, every tin being inspected by the chemist in charge of the works and again upon its arrival in London. Messrs. Stern do not sell any of their oil in bulk, except to certain hospitals. They put it all up in bottles varying in size from $\frac{1}{2}$ oz. to 6 oz., and bring it into commerce as "Pumiline." The liquid extract for use in baths is imported in casks holding 100 kilos. each. The third floor is used for the preparation of the liniment, which is a compound of the essence with olive oil and chloroform; and of the Pumiline ointment, as the base of which lanoline, with the addition of a little paraffin oil, is employed. Until the middle of this year all these preparations were manufactured in Germany, but since the removal of the establishment to the red-brick mansion the goods are all made in this country. A characteristic feature of the Pumiline goods is that they are all put up in pea-green boxes, and that the same pleasantly verdant hue has been adopted for the show-cards, pamphlet-covers, and, in fact, wherever possible, even the soap being coloured a green shade by means of chlorophyll pigment.

The ointment-bottles alone are blue, and the explanation is that they cannot be had in any other colour. "We make it a point," said our guide, "to purchase everything we can in this country, but we find that in two important instances British manufacturers are absolutely unable to compete. Thus, we have to

BUY OUR OINTMENT-POTS IN FRANCE.

You see here a few crates of them which have just arrived." The crates contained neat blue bottles packed in lots of five by means of a wisp of straw, and we would advise some of our English friends in the bottle trade to ask Messrs. Stern for a sample of the pots.

The jujubes are made both sugar-coated and unsugared, and we were shown an old batch made some time ago, when white gum arabic was momentarily out of the market. They are quite brown, and appear to have been made from Aden gum. At present pale gum, if not of the true Turkey kind, is again obtainable, and the jujubes are consequently of a pale colour. "If only the proper kinds of gum would again become as plentiful as before we could sell our jujubes at half the present price," said our guide. But what chance is there of that with the Mahdi being "kilt entirely" one day and bobbing up from below again the next?

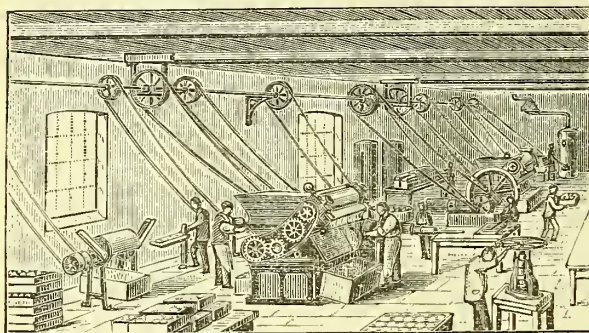
The ointment is now made in a hand-power mixer, which holds 80 lbs. and can turn out three batches a day, but the erection of a steam-power plant is in contemplation.

The top floor is being fitted up as a drying-room for the bottles, and one of the new departments which are to be added to the works will also find its home here. Thence we descended again to the basement, where a Beyer's milling system soap-plant is kept going at high pressure turning out Pumiline soap. The soap stock is the second ingredient in the firm's manufacture which they say cannot be obtained in this country of the desired quality and price. Our representative suggested several names of well-known soap-makers, but was informed that they had all been tried. "We are

COMPELLED TO BUY SOAP STOCK IN GERMANY.

It is made there much better than we can get it here from a combination of palm and olive oils, and we get it in pale yellow cakes or slices, which we allow to ripen for eight or nine months before putting them into the mill." The first process in the soap manufacture is to pass the cakes into a double-action machine, which cuts them up into thin shavings. These are mixed in a wooden box with a certain proportion of lanoline. The compound is then placed in the rolling-mill, through which it passes three times backwards and forwards. The Pumiline essence is next added, and the material passed through the roller once more. The next process consists in colouring the mass and transferring it into the hopper, whence it issues in bars which are cut to the desired length and dried for twenty-four hours. The bars are then divided into cake size, trimmed and rounded off at the corners, and placed in the stamping press, which is capable of stamping about 800 cakes a day. The cakes are subjected to a lengthy process of drying, first under hot

air and next at ordinary temperature, and are then ready for packing. The usual size in which they are put up is in boxes



of three, to retail at 1s. 6d. per box; but large 1s. cakes are also made.

"ARE PINE OIL PRODUCTS ALSO MADE ABROAD?"

was our last question, to which, to our surprise, a negative answer was given. Pine oil and its properties are, of course, well known on the Continent, and both extract and essential oil have been used for bathing and inhalation purposes in Germany and other countries for years. But nowhere abroad has any attempt been made to create a regular business in preparations such as those of the Messrs. Stern. The firm transact their colonial and foreign business from their London headquarters, and they are contemplating an attack upon the American market as soon as they can get leisure to prepare a proper plan of campaign.

OUR Amsterdam correspondent writes:—"It is a fact deserving attention that in 1889 about 44 per cent. more Java cinchona bark of private plantations has been sold here than in the preceding year, viz. 3,719,965 lbs., whilst I had, in my letter dated December 28, 1887, estimated the importation of private bark in 1889 at 25,000 packages of about 150 lbs. each = about 3,750,000 lbs. A London firm of brokers are apparently in error in saying, as they do in a recent report, that 'the present crop of Java cinchona bark shows a moderate increase as compared with the previous (1887-88) Java crop'; and also in their statement, in an earlier report, that 'the last crop (1887-88) of Java bark shows an increase, but not the heavy quantity anticipated by so many expressing an opinion.' The firm in question probably alluded to your issue of December 31, 1887, in which the future output of Java crops (1888 and 1889) was correctly estimated, as I do not know of anyone else having published an opinion, with figures, on this subject. I maintain my opinion, expressed in my letters of December 14 and 28, 1887:—(1) That an average of 4 per cent. of quinine (sulphate) in the bark produced is the vital question for a plantation of cinchona bark; (2) that Java, where still many poor trees, cultivated from seed, are existing, will progress in quantity and quality of its bark from year to year; and (3) that Java and other districts producing bark of at least 4-per-cent. quinine will in a few years be the only ones where cinchona-growing will offer a profit, however moderate that may be."

To prevent bumping in distillation, Mr. Stanley E. Parkhill, of Owosso, has suggested in the *Pharm. Era* to roughen the inside of the flask by placing in it a little fluorspar, then a little sulphuric acid and water, and warming the flask until action begins. It is then set aside for a few minutes, and finally is rinsed out, and is then ready for use. The result is said to be excellent.

"THE TEA INDUSTRY OF CEYLON" is the title of a neat little pamphlet which has been compiled and issued by Messrs. Kearly & Tonge, of Mitre Square, E.C. The history of Ceylon tea begins in 1837, but the trade did not begin until 1877, when 2,000 lbs. were exported. Messrs. Kearly & Tonge predict (and they ought to know, for they are amongst the principal dealers) that the imports into London for the present year will figure between 32,000,000 and 34,000,000 lbs. Chemists who sell tea, as well as those who do not, should send for a copy of the pamphlet.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., December 19.

THE year's trade in our branches closes with a much better feeling generally than has been the case for the last few seasons. Trade during the present week has been decidedly brisker than might have been expected, and in a considerable number of articles a steady business is being done at full prices. The following articles are dearer:—Camphor, raw and refined, quinine, glycerine, prussiate of potash, soy, jalap, insect flowers, saffron, tonquin beans, buchu, olive oils, gambier, various kinds of gum arabic, benzol, ginger, and sulphate of ammonia. We quote lower:—Cinchona, castor oil, coca leaves, cream of tartar, quicksilver, bleaching-powder, shellac, galls (China), petroleum, cottonseed oil, and chillies.

ACID (CARBOLIC).—Crystals of good melting-point are quoted at 1s. per lb. for large drums, liquid acid at 1s. 6d. per gallon. The new synthetical carbolie acid, for which it is claimed that it leaves behind no unpleasant smell whatever, may now be obtained through any wholesale drug house.

ACIDS (VARIOUS).—Boracic has been in good demand at 24s. per cwt. for prompt delivery and 22s. 6d. forward. Citric very dull and neglected at 1s. 3½d. per lb., nearest quotation. Oxalic nominal. Tartaric flat at 1s. 3½d. to 1s. 4d., according to brand.

AMBERGRIS.—A small parcel (about 18 oz.) has just arrived *via* New Zealand. It has not yet been inspected, and nothing can therefore be said about the quality, but it is sure to be held at high prices.

AMMONIA SALTS.—Carbonate dull at 3½d.; sal ammoniac, scarce and wanted, at 36s. for first, and 34s. for second, quality. Sulphate of ammonia is dearer, and has been in demand, closes rather quiet at 12l. 7s. 6d. for all brands.

ANISE.—Some business in *Star anise* for future delivery was recently reported at the high price of 90s. per cwt. On the spot there is nothing available, and, according to the latest mail reports, nothing offers from China.

BENZOL dearer again, of 90-per-cent. there were buyers early in the week at 3s. 4d., but now it is quiet at 3s. 4½d. to 3s. 5d. 50-per-cent.: Nothing valuable under 2s. 7½d. to 2s. 8d.

BLEACHING-POWDER very dull, and offered at much lower prices. London, nominal time for early delivery, from 4l. 15s. down to as low as 4l. 12s. 6d.

BUCHU.—A small business is reported at an advance on the last auction rates; 3¼d. per lb. for good green round leaves.

CAMPOR (CRUDE).—No further business is reported for arrivals, but it is said that 25 tubs of Japan camphor have sold on the spot at 8l. 5s. per cwt. and that there is not a tub left in London. The *Oil, Paint, and Drug Reporter* states that it has received information, "from what may be considered an official source," that while there may have been some restriction of the output of camphor, the limited offerings from Japan are one of the results of manipulation of the primary market by native speculators. Some twenty-three years ago the Japanese Government organised a Forestry Bureau, one of the duties of which was to suppress the wholesale destruction of the trees. The bureau estimates each year the number of trees that may be safely felled without injury to the forests, and grants permits to cut. These permits are sold at public auction to the highest bidder. For the past ten years the regulations of the Forestry Bureau of Japan have been strictly enforced, and

there can, therefore, be no ground whatever for the report current a year ago that unlimited destruction of the camphor trees had been permitted.

CAMPHOR (REFINED).—The English refiners have again advanced their quotations 1*d.* per lb. to-day. They now ask 1*s.* 10*d.* per lb. for *Bells*. A small quantity of foreign refined was offering yesterday at 1*s.* 8*d.* per lb. from a second-hand holder, but we do not think that figure would be accepted any longer.

CASCARA SAGRADA.—Quiet and unaltered. The latest mail news from America is to the effect that the holders on the Pacific Coast want higher rates than those in New York, but there is now a sign of a coming advance on the latter market also, and 62*s.* 6*d.* to 66*s.* "c.i.f." is the quotation.

CINCHONA.—At Tuesday's auctions the following quantities were offered:—

	Packages	Packages
Ceylon bark	1,899 of which	1,311 were sold
East Indian bark ..	606 "	571 "
Java bark	89 "	89 "
South American bark	336 "	3 "
Total	2,930 "	1,974 "

The assortment of barks was a fairly good one, there being but few very ordinary parcels. The demand on the part of the manufacturers was not particularly brisk, except for parcels of more than average richness, and although quotations were very irregular, we should judge that the prices paid were rather lower than at the preceding auctions, and that even the better lots very rarely realised more than 1½*d.* per unit. The following are the approximate quantities purchased by the principal buyers:—

	Lbs.
Agents for the Brunswick factory	142,272
" the Mannheim and Amsterdam works ..	95,945
" the American, French, &c., works ..	91,085
Messrs. Howards & Sons	61,855
Agents for the Frankfort o/M. and Stuttgart works	55,011
" the Auerbach factory	14,890
Sundry druggists	19,716
Total quantity sold	480,574
Bought in or withdrawn	183,236
Total amount of bark catalogued	663,810

It should be well understood that the mere weight of bark purchased affords no guide whatever to the quinine yield represented by it, firms who buy a small quantity of bark by weight frequently taking the richest lots, and *vice versa*. An analysis of the catalogues gives the following prices for sound bark:—

CEYLON BARK.—*Original*: Red varieties, ordinary dull and weak to fair chips, 2*d.* to 2½*d.*; fair to good stem chips, 2½*d.* to 3½*d.*; fine bright stem chips, 3½*d.* to 4*d.*; fair to good bright spoke shavings, partly mixed with branch quill, 2½*d.* to 4*d.*; ordinary dull and papery to fine bright bold druggists' quill, 3½*d.* to 8½*d.*; dull and dusty to good root, 2½*d.* to 5*d.* per lb. Yellow varieties: Good to very fine rich quilly chips, 6½*d.* to 11*d.*; fair spoke shavings, 3½*d.*; dull dusty root, 2½*d.*; very fine rich ditto, 11*d.* per lb. Grey varieties: Ordinary dull chips to good branchy chips, 2*d.* to 5½*d.*; good bright root, 6½*d.* to 7*d.* per lb. *Renewed*: Very common weak red chips, 2*d.* to 2½*d.*; good bright quilly chips, 4*d.* to 5½*d.*; fine rich chips and spokeshavings, mixed, 6*d.* to 7½*d.* per lb. Grey fair to good bright rich chips, 4*d.* to 9*d.* per lb. Yellow: fair to fine bright rich chips, 5*d.* to 11*d.* per lb.

EAST INDIAN BARK.—*Original*: Red fair to good bright quilly chips, 2*d.* to 6*d.* per lb.; good hold druggists' quill, 9*d.* to 9½*d.* per lb.; root, from 2½*d.* to 5*d.* per lb.; grey good strong chips, 4½*d.* to 5½*d.*; fine bold strong rich, 6½*d.* to 8*d.*; fair spoke shavings, 3*d.*; thin broken branch, 2½*d.* to 3*d.*; yellow chips, 4½*d.*; dull dusty root, 2*d.* per lb. *Renewed*: Fair to good strong red chips, partly mixed with branch and mossy pieces, 2*d.* to 5½*d.*; good to fine branchy grey chips, 4*d.* to 8½*d.*; a few lots very rich ditto, 10*d.* to 10½*d.*; bright yellow chips, 9*d.* per lb.

JAVA BARK. Good strong yellow root, partly siftings, 6*d.* to 7½*d.* per lb.; fair stem chips, 4*d.* to 4½*d.*; fine quilly chips, 7*d.* per lb.

SOUTH AMERICAN BARK. Previous to the auctions it was reported that about 250 packages of *Cuprea* bark of old

import had changed hands privately at steady rates, from 5½*d.* per lb. for the best down to 2½*d.* per lb. for inferior qualities. At auction 336 packages cultivated Bolivian *Calisaya* quill were shown, but all bought in except three packages. For the best lots 8½*d.* per lb. is asked, offers of from 7½*d.* to 8*d.* per lb. being declined. Our imports from all quarters since our last report total up to 389 packages.

COCA LEAVES.—Slightly lower prices are reported from New York, viz., 1*s.* 2½*d.* per lb. "c.i.f." for the best dark green *Huanoco*, and 11*d.* "c.i.f." for pale *Truxillo*. There appear to be a good many European orders in the market, and 50 bales *Huanoco* have just been taken for Hamburg.

COPPER (SULPHATE).—Firm at 23*l.* 10*s.* to 24*l.*, according to brand. First half of next year at 22*l.* 15*s.*

CREAM OF TARTAR.—Easier and quiet at 110*s.* per cwt. for best white French crystals.

GALLS.—Both *Turkey* and *China* galls remain firmly held, but we do not hear of much business. For good Canton galls on the spot owners now require 80*s.* per cwt., though no higher price is yet reported to have been paid than 74*s.* For shipment December-January steamer plum-shaped galls are reported to have been sold at 62*s.* 6*d.* to 63*s.* 6*d.* "c.i.f." terms, which would show a decline, and it is said that there are now offers at 62*s.* "c.i.f.," but buyers for this variety have apparently quite withdrawn. Some galls of usual shape are offering at 67*s.* 6*d.* "c.i.f."

GAMBIER.—There have been further transactions in *Block gambier* at 26*s.* 6*d.* per cwt. for December-January shipment, but for nearer positions improved prices are reported paid, viz., 26*s.* 9*d.* to 27*s.* for November-December and 27*s.* 3*d.* for October-November shipment.

GLYCERINE.—The principal brands of double-distilled sp. gr. 1.260 are now all quoted at the same price, viz., 65*l.* There are some indications of an understanding among the principal redistillers of glycerine, with a view to bring the prices of the distilled article in harmony with the recently-advanced prices of the crude article.

GUM ARABIC.—The last auctions of the year were held to-day, for which about 2,700 packages were catalogued. There had been an excellent demand privately, principally of good *Ghattis* and *Amrads* for America, and the improvement which was manifested to-day was, therefore, not unexpected. *Amrads* sold at an irregular improvement of from 5*s.* to 10*s.*, and one parcel, of which a fortnight ago sales had been made at 55*s.*, now brought 67*s.* 6*d.* per cwt. *Ghattis*, if anything, are dearer. Superior *Aden* gums would bring high prices if any were offered, but ordinary qualities are greatly neglected. In *White Mogadore* and *Senegal* gums no business is reported. The Trieste market is said to be almost cleared of fine picked gums. The following is a synopsis of the result of to-day's auction:—*Cape*: Fine soft ambery sorts, 92*s.* 6*d.*; fine small siftings, 70*s.* *Aden* sorts: Good bright, 66*s.*; common to good hold siftings, 16*s.* to 42*s.* per cwt. *Bombay-Amrad*: Red to good ambery drop, 35*s.* to 53*s.* *Kurrachee*: Ordinary dull to fine pale drop, 53*s.* to 75*s.* *Ghatti*: Ordinary dark to good pale, 21*s.* to 48*s.*; fine to superior white, 53*s.* to 80*s.* per cwt.

INSECT-FLOWERS.—From the producing countries there are somewhat higher quotations again. Trieste to-day quotes 90*s.* for open and 120*s.* for closed flowers, "c.i.f." terms. The following are the Trieste statistics for the last five years:—

	1889	1888	1887	1886
Stock on June 1 (commencement of new season)	100 Ko.	163	89	233
Imports from June 1 to November 30	6,419	2,248	3,533	2,894
Deliveries	5,109	1,285	3,259	2,457

JALAP.—The demand continues, and we understand that small sales of fine heavy root have been made at 9½*d.* per lb. There is very little offering in this grade, and 85*s.* per cwt. is asked for delivery, "c.i.f." terms.

MEAT EXTRACT.—A quantity of meat extract was sold to-day by public auction. The extract was put up in cases varying from 84 to 224 lbs. in net weight, two or more tins being placed in a case. It was offered in lots of from five to 50 cases, and the sale conditions were rather different to those at which drugs or drysalteries are usually sold. The samples bore no indication of the place of manufacture.

The first lot, which appeared to be of good quality, was put in at 3s. 6d. per lb., and ultimately sold at 4s. 7½d. per lb.; then came a less-desirable parcel, which realised 4s. 6d., and finally a large lot, which commenced to sell at 4s., but gradually dropped down to 3s. 7½d., below which price the auctioneer refused to go on. The weight of the total parcel was 32,816 lbs., of which 22,493 lbs. were sold. The value of the total parcel may be estimated at about 7,000l. There was also a lot of 167 lbs. offered simply as "extract," which we understood to be fish extract, and for which no offers were obtainable.

MERCURIALS unchanged, at the prices last quoted. Chinese Vermilion is dearer; owners now require 3s. per lb. for good chops.

OIL (CASTOR).—Dull and rather easier. In London good Calcutta seconds may be had at 4½d. per lb., and in Liverpool sales have been made at 4½d. per lb., while first pressure French oil has changed hands at 3½d. per lb. The Calcutta market on November 26 remained exceedingly firm with few sellers. Large quantities are afloat to the United Kingdom at present, viz. about 1,440 cwt. to London, 1,460 cwt. to Liverpool, and 150 cwt. to Dundee, or about 3,050 cwt. altogether, against only 320 cwt. at the corresponding period of 1888.

OIL (OLIVE).—The market has shown much firmness during the last few days, and of Spanish oil there is only a very small supply left in stock now, for which about 2l. 10s. advance is required, 38l. being the nearest quotation. Mogadore oil has also advanced from 35l. to 36l. 10s., and Messina is not offering. Concerning eating oils we have to report that the markets abroad are advancing everywhere owing to shortage in the crop. The Bari district, which furnishes the principal crop, its oils being also the cheapest and the earliest on the market, will only give one-third of an average yield, and in Tuscany and on the Riviera matters are almost equally bad. The first shipments of the new Bari oil will take place shortly, and the oil will probably be available here in the second half of January. The stock of fine oil at present left here is getting into a very small compass, and may be quoted at 4s. 3d. to 4s. 9d. per gallon for Bari, and from 4s. 9d. to 5s. 6d. for Leghorn and Lucca oil.

OILS (ESSENTIAL).—The market is very dull, and prices are generally nominal. Japanese Peppermint oil, 5s. for native brands and 6s. for Cocking's. Fair quality Menthol, spot 8s., and forward delivery 7s. 9d. per lb., "c.i.f." terms. American oil of Peppermint dull at 11s. per lb. for H.G.H.

OILS (VARIOUS).—Cocoanut oil steady; good to fine Ceylon, 23s. 6d. to 23s. 9d.; Cochin, 26s. to 26s. 6d.; Mauritius, nominal at 24s. Cottonseed oil has declined recently, but closes rather better; crude on the spot at 19s. 3d. to 19s. 6d.; refined, according to brand, 21s. 6d. to 23s.; Liverpool, refined, 22s. to 22s. 6d. Linseed oil firmly held at 20s. 6d. to 20s. 9d., according to position and packing. Hull, 19s. 6d. for naked oil. Liverpool, 22s. to 22s. 6d. for export casks, which are in small supply. Palm oil steady at 25s. 6d. for fine Lagos. Petroleum, flat and easier; American, 6d. to 6½d.; Russian, 5½d. Rape oil firm; brown on the spot, 32s. 6d.; English refined, 34s. In Liverpool there are sellers of Stettin refined at 35s. 6d. Turpentine, after declining, closes rather better, at 32s. 9d. to 33s. for American spirits.

OPIUM firm, but unchanged.

PODOPHYLLIN.—The resin is very scarce in America, and much inquired for, especially for export. The present quotation is still 8s. to 8s. 3d. per lb. "c.i.f." terms, but there seems to be a good prospect of higher rates in the near future.

POTASH SALTS.—Montreal Potashes dull and quiet at 20s. 9d. to 21s.; Pearl ashes at 30s. 9d.; Bichromate firmly held at 4d.; Chlorate dull, and very little business at 4½d. per lb. for spot; first quarter of next year 4½d. nearest quotation; Prussiate, very high prices are now asked, and foreign is no longer to be had even at the present quotation, which is 9½d. per lb.; English might be had perhaps at the same price. English refined Saltpetre steady at unchanged rates.

QUICKSILVER.—The market has been dull and lifeless. The importers still quote 9l. 15s., but second-hand holders offer freely at 9l. 8s. per flask. The arrivals have been very heavy

this week, and amount to over 5,000 bottles. The latest Cape mail states that at Johannesburg a wonderful strike of quicksilver has been made on the Farm Vlakfontein. It is eight or ten feet from the surface, with every indication of going down. No discovery of greater importance to the gold industry could be made, and the large houses are greatly interested about it.

QUININE.—The market has improved this week, and about 60,000 oz. second-hand stuff are said to have changed hands on the spot at 1s. 2½d. per oz. (an improvement of ¼d. to 1d. since last week), while about 40,000 oz. have been sold for delivery, mostly second-hand, March-April at 1s. 2½d. per oz., with a small parcel of first-hand B. & S. brand (April delivery) at 1s. 3d. per oz. The B. & S. agents to-day quote nominally 1s. 3½d. for March-April, though they would probably accept less, but they say that they are by no means anxious to sell.

SAFFRON continues to advance in Spain, and is now quoted here at 50s. to 55s. for good to finest Valencia.

SHELLAC.—Towards the close of last week a fairly steady business was transacted, both in Orange lac for March-January delivery, and in AC Garnet on the spot, the latter selling at 66s. per cwt. At auction 92 cases fine orange lac, slightly cakey, G in double triangle, were bought in at 107s. 6d. per cwt., but part of this parcel is reported to have since changed hands at 105s. per cwt. We also hear of business in unworked Garnet lac at 66s. to 66s. 6d. for AC, and 74s. for fine OCC, and in second Orange, TN quality, at 76s. 6d. per cwt. The shipments of shellac from Calcutta to all parts during the season recently closed (November 1888–October 1889) are given as follows:—

	Orange	Garnet	Burton	Total
To U. Kingdom	cases 22,433	7,026	6,355	35,844
„ Continent	„ 2,173	206	331	2,710
„ U. States	„ 15,185	—	1,225	16,410
„ Singapore and the East	„ 7:2	5	106	843
	„ 40,573	7,237	7,997	55,807

The following were the quotations at to-day's call:—

		Dec.	Jan.	Feb.	Mar.	Apr.
Orange TN, sellers	.. ..	77/6	78/	78/6	78/6	100 Cases
„ buyers	.. ..	76/	77/	77/6	77/6	78/
Garnet AC, sellers	.. ..	68/6	70/	73/	—	—
„ buyers	.. ..	67/6	67/6	68/3	—	—

This shows a somewhat easier market.

SODA SALTS.—Ash scarce and in demand: London, 1½d.; Tyne, 1½d. per degree: Bicarbonate steady at 5s. 9d. to 6s.; Caustic firm, but quiet; Crystals, after having been in good demand, close lower and with easier tendency, at 51s. to 51s. 6d. ex-ship, and 42s. to 42s. 6d. on the Tyne; Nitrate dull, and easier, at 8s. 4d. to 9s., according to quality.

SOY.—China is slowly advancing, 1s. 3½d. per gallon having recently been paid for a small quantity.

STROPHANTHUS.—We are asked to state that the brokers who have the parcel in hand to which we have recently had occasion to refer have not sold it all, as reported last week, but only part of it.

TEA.—In spite of the holiday tone the market keeps very steady. Moning and Kaisow for price selling 4½d., and teas from 5d. to 7d. are firm. Panyongs from 6d. to 9d., which have been remarkably cheap, are scarcer, and dealers' purchases of a few weeks back cannot readily be matched. Newmake teas are again in rather more plentiful supply, and sell readily at last week's figures. Scented teas are weak, commonest S. Capers selling as low as 5d. Assams are very firm, common Souchongs fetching 6½d. to 6¾d. The better grades of Pekoe, from 11d. to 1s., also show an advance from recent easy rates, but broken Pekoes are still very cheap, and handsome tippy teas at 1s. to 1s. 1d. are worth attention: Ceylons are slightly easier again, good liquoring teas selling 9½d. to 9¾d. and capital Pekoes at 10½d. to 11d., but they are still 3d. to 3½d. above the lowest point of the year.

TONQUIN BEANS.—Advices from New York report that the new crop of Angosturas is going steadily into consumption, and the price remains firm, but unchanged, at 6s. "c.i.f." terms. Surinams are held for comparatively high prices.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulae consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

The New Pharmacy Bill.

SIR,—Mr. Hampson's motion echoes the prevailing sentiment that something besides a higher curriculum is wanted to benefit the accomplished chemist, and that something is "simple justice."

For the greater safety of the public it is deemed necessary that the chemist should be thoroughly examined as to his knowledge of the drugs he deals in, and to pass his examination he has to spend much time and money, whereas his neighbour the grocer is allowed to retail every drug "except scheduled poisons," that the chemist deals in without passing any examination at all. Is not this arrangement unjust to the chemist? Every chemist that I have spoken to on the subject says "Yes."

A new Pharmacy Bill should make it compulsory that all dealers in drugs and chemicals for medicinal use, "for the better protection of the public," should be pharmaceutical chemists. Then justice would be done to the chemist, and the Pharmaceutical Society be in reality, and not name only, the Pharmaceutical Society of Great Britain.

I am, yours obediently,

F. TEBBUTT.

[Mr. Tebbutt's proposal, which means, we suppose, that only pharmaceutical chemists should deal in drugs and chemicals for medicinal use, is a large order, and its realisation is so remote that we will not discuss it. But there can be no use in basing the demand on a confusion of ideas. How could Mr. Tebbutt establish his implied argument that the law as it stands gives any favour to the grocer over the chemist?]

197/25. *Unqualified*, in a long letter, urges that those who were unqualified assistants at the time of the passing of the Pharmacy Act, 1868, and are so still, ought in justice to get on the register, even now, without examination. He presses his argument with much skill, but it really is of no use to open the matter for discussion. What he wishes could not be done except by an Act of Parliament, and the persons concerned are too few, and their grievance too fragile, to admit any chance of the success of such a measure, even if chemists generally were to agree with it.

The Sale of Methylated Spirit on Sunday.

The following letter has been sent to the secretary of the Board of Inland Revenue:—

To Secretary, Board of Inland Revenue,
Somerset House, W.C.
7 St. Patrick Street,
Cork,
December 5.

SIR,—A notice has been handed to me by an officer of your Board saying that I am "liable to a penalty of 100% if I sell to any person methylated spirit between 10 P.M. on Saturday and 8 A.M. Monday." I am a chemist with a large business connection, and my sale of this spirit is principally confined to the use of the spirit for burning under bronchitis kettles and inhalers, used by invalids suffering from congestion of the lungs, bronchitis, and diphtheria; and when one is ordered by a physician on a Sunday, or at midnight on a Saturday night, am I to refuse the sale of the spirit necessary

to work the kettle, and thereby endanger the life of the patient? It is for emergencies such as these that I keep an assistant on duty from Saturday until Monday, and I will be glad to have your opinion on this matter, as I think the duty of all good governments is that the welfare and health of the subjects should be insured to them.

I remain, yours truly,

RICHARD BLAIR.

The following is a copy of the answer received:—

Inland Revenue Office,
Somerset House, London, W.C.
December 9, 1889.

SIR,—In reply to your letter dated the 5th instant, I am directed by the Board of Inland Revenue to acquaint you that they have no power to modify in your favour the prohibition of the sale of methylated spirits from Saturday evening to Monday morning, set forth in Section 26 of the Revenue Act, 1889.

I am, sir, your obedient servant,

(Signed) W. B. HEBERDEN,

Ass. Secy.

Mr. Richard Blair.

Methylated Spirit.

SIR,—Now that restrictions have been placed on the sale of methylated spirit, and the senses of the Excise authorities consequently quickened thereby, it may not be out of place to draw attention to a fact which, I think, is not generally known to the trade, viz., that methylated spirit is not allowed to be kept in any other room than that registered. I had a visit from an Excise officer the other day, and he informed me that if any of the Inland Revenue officials from headquarters happened to drop in and find the spirit in any unregistered room or rooms, they had power to confiscate it. It behoves chemists, therefore, to be careful in seeing that their stock is kept in the proper place.

Yours faithfully,

SIGMA. (202/43.)

Tincture Residues.

SIR,—In reply to Mr. Eberlin, the reason for drying tincture residues at 120° C., instead of 100° C., is that at the latter temperature many of them are not rendered anhydrous; and it is obviously desirable that in each case desiccation should be complete.

Yours faithfully,

Enfield, December 17.

FRED. W. FLETCHER.

Natural v. Artificial Salicylic Acids.

SIR,—With reference to the discussion regarding the lethal properties in salicylate of sodium, we have communicated with our friends, Messrs. Schering, of Berlin, and reserve to ourselves the pleasure of communicating to you the result of their research. Meanwhile we desire to point out that the sale of the purer descriptions, such as the dialysed "Acid. salicylic. purissim." needle crystals, and the pure crystallised sodium salicylate, has remarkably declined during the last two or three years.

Either this is the result of economy or competition, or it may also be taken as a proof that the purity of the ordinary product suffices.

With all this, however, the purer forms of artificial acid and salts may be had at slightly higher price.

We are, sir, yours respectfully,

6 & 7 Cross Lane St., E.C.,

A. & M. ZIMMERMANN.

December 19.

Drops v. Minims.

SIR,—Would some of your readers inform me of the general usage of the trade on this point. In my experience it has been customary, for the sake of "greater accuracy," to translate any given number of "drops" on a prescription as "minims." Certainly the method of measuring quantities by dropping is essentially inexact, yet it is recognised by the Pharmacopoeia as a means of measuring creosote. In the case of tinctures of aconite and chloroform the "greater

accuracy" will be found to be much more inaccurate than by ordinary dropping.

Using a small pipette I have obtained these results:—

Distilled water ..	20 drops measured	15 minims
Hydrocyanic acid, B.P.	20 "	16 "
Tincture of aconite..	20 "	7½ "
Chlorodyne ..	20 "	8½ "
Chloroform ..	20 "	4½ "
Nitrite of amyl ..	20 "	6½ "
Ether, s.g. '720 ..	20 "	5½ "
Liq. arsenicalis ..	20 "	10 "
Liq. ammon. '891 ..	20 "	15½ "
Liq. hyd. nit. acid. ..	20 "	7½ "
Liquefied carbol. acid	20 "	9 "
Absolute alcohol ..	20 "	7½ "

I am, yours faithfully,

Clifton.

T. C. RICHARDS.

Keratin Pill-coating.

SIR,—Not having read the directions given in "The Art of Dispensing" regarding keratin pill-coating, I am not able to say if the following method is a typical one. It gives, however, a very satisfactory result.

The mass must be worked together with a little lard, the pills then coated with graphite, and keratined with a solution of keratin of the following strength:—

Keratini ..	..	..	1 gramme
Aqueæ ammoniæ ..	..	..	5 "
Alcohol ..	..	..	5 "

M. F. solut.

A solution of keratin, 10 per cent., in acid acetic glacial also answers well.

I remain, sir, yours truly,

Otterup, A. VON CONOR-CARLSFELD-KRAUSE.
Denmark, December 9.

Medical English.

SIR,—Mr. D. B. Dott, whose general expressions I cordially agree with, should not object to the use of "Armamentarium," for the reason that it is a true word, being direct from the Latin, and as such, however much we may deplore its length, it should command our admiration and respect. It is a vast improvement, philologically speaking, upon the ugly term "Armamentary," given as its exact equivalent by Nuttall, Murray, and many others.

"Somnifacient" has, professionally, precisely the same meaning and value as "hypnotic" and "soporific"; but these two latter words are not, strictly arguing, as definite as "somnifacient," which at once appeals to us as a "make to sleep"—a meaning almost Saxon in its simplicity.

I view with something almost akin to horror the gradual if not rapid incursion of the many mongrel words which are tending both to disfigure and demoralise our language by robbing it of its natural ruggedness and characteristic force. Shakespeare, in his, the palmiest days of this country's literature, contented himself with 14,000 words wherewith to express the many and varied charms of his mind. Chaucer was satisfied with even less; but the modern man of letters requires not fewer than 130,000; then he is not altogether happy, and must needs cry for more.

Obediently yours,

CHARLES F. RIDEAL, F.R.S. Lit.

1 Bloomsbury Place, W.C.

The Sale of Poisons by Unqualified Persons.

We acknowledged on November 30 and December 14 sums received or promised amounting to 54*l.* 5*s.* 6*d.* We have since been notified of the following. The contributions paid are held by us until it is decided whether the appeal will be prosecuted:—

	£	s.	d.		£	s.	d.
Frazer & Green, Glasgow	2	2	0	Blackbourn, A., 270 Moseley			
F. R. P. (203/21) ..	2	2	0	Road, Birmingham ..	0	10	6
Floyd, J., Bury St. Edmunds	1	1	0	Jaap, J., Glasgow ..	0	10	0
Greig, W., New Apothe-				Ward, W., Sheffield ..	0	10	6
caries' Co., Glasgow ..	1	1	0	Devonian ..	0	5	0
Matterson, J. K., 108 New				Walker, E. J. ..	0	5	0
Oxford Street, W.C. ..	1	1	0				

Starching Wrinkles.

SIR,—I note your reply to "T. A." last week in reference to use of glycerine and turpentine in starching. The glycerine is used, I believe, to prevent sticking in ironing. I give formula used in our household, which, when mixed, will keep for months, and will be found useful, as it is always ready, and small quantities can be used as required:—

White cold-water starch ..	..	..	1 lb.
Cold water ..	..	..	6 pints
Glycerine ..	..	..	3 tablespoonfuls
Turpentine ..	..	..	3 "
Borax ..	..	..	2 oz.

Rub down the starch with a little water, dissolve the borax in the rest, add the turps and glycerine last. Stir well up when required for use.

NAIAD. (199/7.)

Views on Sponge.

SIR,—In your report of the case of "Harris & Co. v. A Tennant" we notice some interesting evidence, showing that a full knowledge of the sponge trade is not a part of every chemist's equipment. One of the defendant's witnesses deposed that the "best kind of sponges were not bleached." This gentleman is evidently unaware that the sponges which he may have been called upon to value are all bleached—even those in original cases—and that there is no such thing as a truly unbleached honey-comb sponge ever offered on the market for sale to druggists. All honey-comb sponges, whether of the best or of any other kind, are bleached either before or after they are imported. The term "unbleached" is currently but erroneously applied to dark-coloured sponges, either loose or in their original packages, for the purpose of distinguishing them from the light-coloured sponges, which are bleached by different means, viz. the permanganate of potash process, which requires no more acid (the acid was the cause of the mischief, according to this "expert") than the process employed at the sponge fisheries, the bleaching agents used in the latter being quicklime and sulphuric acid.

It is not necessarily bleaching that makes a sponge weak, for it is well known to connoisseurs that sponges are often found, when fished, to be so delicate in fibre that they will scarcely hold the weight of the water they contain. These sponges should be carefully eliminated from those prepared for sale.

We are, dear sir, yours faithfully,

CRESSWELL BROTHERS.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

An Old Prescription.

SIR,—I should be glad to know what should be dispensed for the last two ingredients of the following prescription. The date is 1860:—

Magn. snlph. ..	..	..	..	5ij.
Potass. nitrat. ..	..	..	..	ʒj.
Liq. amm. Acet. ..	..	..	..	ʒj.
Tinct. camph. co. ..	..	..	..	ʒij.
Spt. æther. nit. ..	..	..	..	ʒiiss.
Emulsio. camph. ..	..	..	..	ʒj.
Mist. salini sol. ad ..	..	..	..	lbss.

M. ʒj. ter die.

December 9.

TARTAR. (194/55.)

Dispensing Charges.

SIR,—I think 2*s.* is a very fair charge for the ointment, referred to December 7. Cocain. hydroch. is now quoted at 3*s.* per drachm, which makes the actual cost of the 12 grains about 7½*d.*, and that should leave a good margin for time, &c.

Some time ago, when in the leading dispensing establishment in Harrogate, it was our rule to charge cocain. hydroch. at the rate of 1½*d.* per grain in dispensing. In all probability the prescription referred to was charged on that scale.

HEURA GATE. (195/52.)

An Explosive Mixture.

The following mixture exploded in the patient's house, and X. Y. Z. (200/20) is refused payment for it in consequence:—

Pot. bromid.	gr. xx.
Liq. ergot. amm.	℥xv.
Aq.	3j.

M.

Three times a day. Send eight doses.

We are asked to explain why this should have been, as "X. Y. Z." has made up several more of the same kind, and cannot get one to burst. Ergot mixtures do ferment; but there is no reason why the above one should have burst the bottle in a short time, and in a cool place too. Is there no ground for suspecting the patient's veracity?

West-end Prescriptions.

Saladin (196/48) has recently had the following to dispense:—

Ammon. carbonat.	3i.
Ext. cascarae sagrad. liq.	3vj.
Tinct. belladonnæ	3j.
Spir. chloroformi.	3ij.
Aquæ ad	3vj.

Fiat mist.

He was surprised to find the resulting mixture perfectly clear and bright, evidently due to the ammonia [That is so.—ED.], and asks us to explain the action. [The alkali forms a soap with the resin of the cascara sagrada.—ED.]

At other prescription which he had was:—

Tinct. ferri perchlor.	℥vj.
Glycerin.	3ij.
Potass. chlorat.	3ss.
Aquæ pimentæ ad	3iv.

When first dispensed it was clear, but soon changed to a dark brown, and finally deposited in the form of dark specks. [This was due to the action of the ferric chloride on the pimento. Pimento water is a very unstable preparation. Ferric chloride gives colour reactions with most aromatic bodies.]

Three Difficulties.

Per Ardua (196/46) asks what is the best *modus operandi* for the following mixture:—

Tr. aurant.	3ss.
Sp. ammon. arom.	3ss.
Quin. sulph.	gr. xij.
Pot. brom.	gr. 80
Sod. iod.	gr. 40
Aquæ camphoræ ad	3viij.

One-eighth t. d. s.

He found this process succeed:—Dissolve salts in 4 oz. aq. camph., and mix tr. aur. and sp. am. With solution rub quinine with p. trag. co. 3ss. and aq. camph. 3ij. Mix and make up to 8 oz.

[The principle of this method is the safe one to go upon. About 5 grains or so of the quinine sulphate is decomposed by solution and action of the aromatic spirit; the free and sticky quinine would be lost to the patient if some suspending agent were not employed. We prefer 2 drachms of acacia mucilage to compound tragacanth powder.]

The same correspondent asks if we would consider 15 minims of "chlorodyne" three times a day a larger dose than a chemist would be expected to dispense without inquiry? The mixture had been dispensed previously, and showed signs of a green chlorodyne having been used. If Collis Browne's be correct thing to use, whence the green?

[The dose is large, but not excessive. The inquiry should be carefully addressed to the customer, and Dr. Collis Browne's preparation is considered to be the one to use. The green colour is due to Indian hemp.]

Per Ardua further asks what would he correct to dispense for ferri carb. ver.? Half an ounce of it, and the same of potassium carbonate, were ordered to be made into 100 pills.

[We think that the prescriber must have been inspired with

some high notions in regard to a pure Blaud's pill, and so insisted on having them contain veritable carbonate. The only thing approaching that in the Pharmacopœia is ferri carb. sacch. It is impossible to make an unoxidised ferrous carbonate under ordinary conditions.]

MISCELLANEOUS INQUIRIES.

197/70. *Edin.*—We only reply to querists who send their names.

199/8. *Linum* makes a **Cough Balsam** according to the following formula:—

Ol. anisi	℥x.
Tinct. benzoin. co.	℥xlviiiij.
" capsici	℥xxiv.
" chlorof. et morph.	℥xcvj.
Glycerini	3vj.
Oxymel. scillæ	3vj.
Dec. lini et marrubii ad	3iiij.
Syrupi (golden) ad	3iv.

Dose: For adults, two small teaspoonfuls.

The dec. lini et marrubii is made as follows:—

Sem. lini	3ij.
Marrubii	3j.
Aquæ	℥j.

Boil ten minutes, and strain.

The points on which our correspondent is troubled are—the fermentation of the elixir; and would he be liable to any penalty by leaving out some ingredients—say the linseed and horehound—and continuing to say that it is a "balsam of linseed, aniseed," &c.? The Merchandise Marks Act would reach him on the latter point. The preparation would keep better if 15 oz. of decoction were made from the 2 oz. of linseed and 1 oz. of horehound, making it up to 20 oz. with rectified spirit containing 40 grains of salicylic acid.

180/18. *Erin.*—The formula does not appear to be a very satisfactory one; but the preparation which you have made is presentable, and quite safe.

189/13. *J. B.*—**Black water Cosmetic.**—From the sample which you send we judge that this is made from yellow glycerine soap (perfumed with citronella), tragacanth, lamp-black, and water. You will have to make a few experiments before deciding upon quantities.

186/4. *A. V.*—We received the samples, but they are substances which we do not think it advisable to report on in this journal.

194/36. *Quicksilver.*—In **Silvering Glass** the surface must be perfectly free from dirt and grease. An amalgam of tin and quicksilver is applied in the following manner:—Spread a piece of tinfoil a little larger than the glass on a marble table, smooth it out, and rub a little mercury into it with a hare's foot; then, having put a border of wood on the foil, pour more clean mercury upon it, and slide the sheet of glass along the surface so as to exclude air bubbles. Press the glass gently, cover with thick cloths, and leave under pressure for a day.

196/23. *W. R.* has had a dental patient who is now *minus* a canine tooth. After it was extracted "W. R." put some cotton-wool, with a little toothache tincture upon it, into the gum. This the patient removed before beginning a meal, and the result was that the gum bled profusely for several hours. "W. R." asks what is the custom in regard to **Treatment of the Gums.** Putting cotton-wool into the gums is now regarded as bad practice. If there is much pain it is not unusual to apply a little of a solution of carbolic acid 3ij., in solution of soda 3vj.; but this is removed again in a few seconds. If there is profuse bleeding, a little liq. ferri perchlor. fort. is applied in the same way.

Otherwise simply press the lacerated gum with the thumb and forefinger. If cotton-wool is put in and allowed to remain long enough to be fixed by the blood-clot, bleeding starts with additional vigour when it is removed.

195/69. *Leander*.—(1) Potassium carbonate does not improve the **Odour of Musk** to any appreciable extent. It is added to the essence in order to heighten the colour. Four grains of the carbonate should be added to each drachm of the musk, the menstruum being a mixture of rectified spirit 5 parts, and water 1 part. Musk is so dear nowadays that formulæ have to be modified according to the price that is obtained for the essence. A drachm of the finest grain musk to the pint provides an essence which bears dilution. (2) June 29.

196/8. *Pyrox*.—When Gunpowder Explodes 32 per cent. of gases and about 68 per cent. of solids are produced. The gases are carbonic anhydride, nitrogen, carbonic oxide, marsh gas, sulphuretted hydrogen, and hydrogen. The three last together do not amount to 1 per cent. The solids are potassium sulphate, carbonate, hyposulphite and sulphide, ammonia sesquicarbonate, and some undecomposed charcoal and sulphur. There is a book on explosives by Sir F. A. Abel which might be useful to you.

196/43. *F. W. Doubleday*.—To Repair a Broken Mortar, make some calomel into a thick cream with mucilage of acacia, and use this as a cement.

194/23. *H. W. A.*—The structure of the piece of metal pipe which you send us shows that the iron is an exceedingly low quality of slag-iron. It has been acted upon by the soil, and the pressure has done the rest. Considering the wretched nature of the iron, we are not surprised.

197/21. *Norice*.—Bromide of Ethyl has been given internally in doses of 10 minims to 30 minims, but it only produces slight drowsiness.

198/69. *J. H. T.*—As near as we can make out, the flavouring in your **Syrup of Spice** consists of coriander (1), nutmeg (1), pimento (4), cassia (1), and capsicum ($\frac{1}{2}$). Mix the spices in these proportions, and use 4 oz. of this to the gallon of syrup.

199/3. *T. B.*—Ginger-wine Essence.—Bruised ginger 4 oz., bruised capsicums 2 drachms, fresh lemon-peel, cut small, 3 oz., proof spirit 1 pint or q.s. Macerate for a week, strain, press the marc, and mix the expressed liquor with the other, then add 20 drops essence of jargonelle pear, $\frac{1}{2}$ oz. of spt. æther. nit., and sufficient proof spirit to make 1 pint. Filter.

199/1. *Athluain*.—You leave out the most important factor, viz., the nature of the substance which you wish to cement. Please repeat your query with that information. Correspondents must be precise. We have not time to waste in trying to discover what they mean but do not say.

199/18. *Nilson*.—See reply to 193/7 in last issue.

199/36. *Edgar Atheling*.—The subject seems more suited for discussion in a general newspaper.

196/1. *Pax*.—A question was asked in October last about check tills, and a few answers were published. We cannot repeat the inquiry.

199/72. *W. J. L.*—We are sorry that we cannot furnish the information, but you might get it by writing to the society named.

Lund Oil.—This was answered last week. W. Harris (Liverpool) suggests that it may be an abbreviation of "London oil," a rheumatic rubber in Henry VIII's reign. It seems to have been composed of oil of absinthe, turpentine, laurel, origanum, and rue in equal proportions. See Deacon Marub's "History of Henry VIII."

191/27. *Ch. Tekadâs* (Osaka).—The Price of Iodine was officially reduced from 9d. to 7d. per oz. on August 2. A further reduction from 7d. to 4d. per oz. followed on August 13. Finally, on September 2, the price was again raised to 9d. per oz., and has since remained there. You will find information about the last rise in THE CHEMIST AND DRUGGIST for September 7, page 338.

200/13. *Alpha*.—To ascertain whether any particular title has been registered as a trade-mark some one must attend at the Trade Marks Office and make a search, for which 1s. per quarter-hour is charged. We do not undertake this work. We should consider that the title you suggest would not be eligible for registration, as it is descriptive.

199/63. *J. Mann*.—Potassium Chloroplatinite.—It is this salt, and not the chloroplatinate, which is preferred for the new platinum toning process. The chloroplatinite is a ruby-coloured crystalline salt, which is much more soluble in water than the chloroplatinate; indeed, the latter is so sparingly soluble that it is owing to that property that platonic chloride is used as a test for potassium salts. Platinous chloride cannot be so used, nor can you readily prepare potassium chloroplatinite by adding a solution of a potassium salt to a solution of platonic chloride. There are several ways of preparing it, perhaps the best for use on a small scale being Thomsen's method, which is as follows:—Take any quantity of platonic chloride, dissolve it in water, and add a strong solution of potassium chloride. After standing for a few hours collect the precipitate, wash well, and, while still in a moist and pasty state, warm, and add cautiously to the paste moist cuprous chloride, so as to leave a small portion of the potassium chloroplatinate undissolved. A nearly black solution is formed, from which, after cooling and filtering, the chloroplatinite crystallises out. Collect the crystals, wash with spirit, and dry.

200/12. *Dormant*.—Please consult the "Buyers' Guide" in our DIARY and any weekly issue.

200/11. *Inquirer* (Glasgow).—There is no recent work dealing generally with narcotics. Anstie's and Cooke's books were published twenty-five years ago.

200/35. *Nemo*.—Without going very minutely into the matter, we corroborate your observation.

199/50. *Homeo*.—Rubini's Camphor.—The Homœopathic Pharmacopœia states that "Dr. Rubini employed a saturated solution containing nearly 50 per cent." It is customary to make this of 4 parts of camphor and 5 parts of spirit, 50 per cent. by weight being meant.

198/71. *J. F.*—Thanks for yours. Strange to say, you are the only one who has noticed it.

189/40. *Zingiberis*.—Please consult our Educational Number, September 28, and call at the schools which take night pupils. It is much better that you should judge for yourself on what you see and hear.

192/39. *Alpha*.—Snuffle in Rabbits.—Tinctures of aconite and belladonna, given alternately, in $\frac{1}{4}$ -minim doses, would help to give relief. Keep the animals in a warm hutch, and give only warm food. The ailing rabbits should be separated from the others, as the disease is infectious.

PALATABLE TONIC LAXATIVE.

FERRIS & CO.'S PATENT

CASCARA

Prepared with the finest sweetened Eating Chocolate, the proportion of the active ingredient being carefully adjusted so that each Tablet or Bonbon contains a dose equivalent to twenty minims of the Fluid Extract of Cascara. The Tablets are of such a form that they can be easily divided, should a smaller dose be desired; and *the taste can hardly be distinguished from that of ordinary Chocolate.*

Feb. 8, 1889.

"Your tasteless liquid extract of Cascara Sagrada and the Bonbons have given me great satisfaction. A little patient greatly appreciates the Bonbons."

—, M.R.C.S.

To Messrs. FERRIS & Co.

In habitual or chronic Constipation. Invaluable for children, ladies, and invalids. No nauseous bitter taste. By far the most agreeable form of administering Cascara Sagrada yet introduced.

In Boxes, 1s. 9d. each; 18s. per dozen.

CHOCOLATE

BONBONS.

Feb. 13, 1889.

"DEAR SIRS,—Please send me a dozen boxes of your Cascara Bonbons. They are a very pleasant way of taking a valuable and nauseous medicine, and they answer their purpose admirably."

—, L.R.C.P., M.R.C.S.

Messrs. FERRIS.

Sole Manufacturers and Patentees, FERRIS & CO., BRISTOL.

VAN HOUTEN'S COCOA

EASILY DIGESTED — **PURE — SOLUBLE** — MADE INSTANTLY.

INCOMPARABLY THE BEST AND MOST ECONOMICAL.

Very strong & nutritious, THIS Cocoa is cheaper & more satisfying than Tea.

"Admirable,"	} <i>BRITISH</i>	"Delicate aroma,"	} <i>THE</i>	
"flavour perfect,"		"PURE & unmixed,"		} <i>LANCET.</i>
"and SO PURE."		"goes a long way."		
	} <i>MEDICAL</i>			
	} <i>JOURNAL.</i>			

"ONCE USED, ALWAYS USED."—HEALTH.

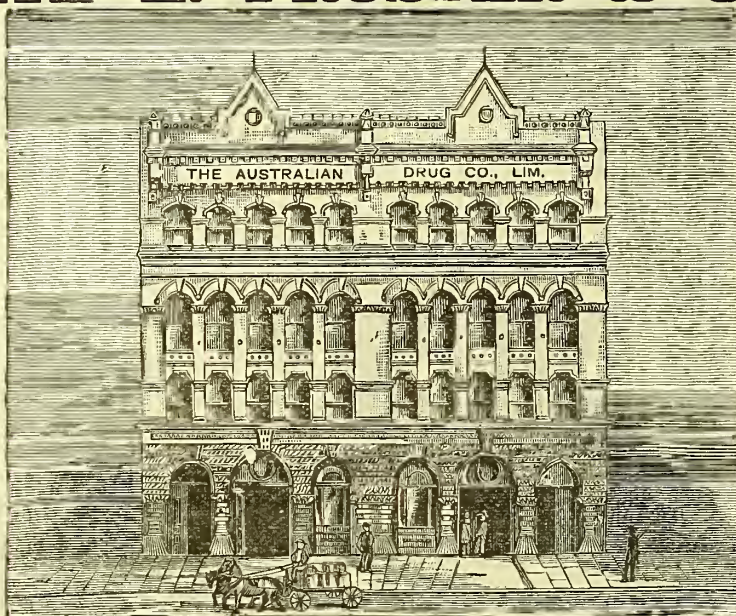
SAMPLE TINS GRATIS through your Grocer or Chemist.

NEW SOUTH WALES

THE AUSTRALIAN DRUG CO., LIM.,

LATE E. PROSSER & CO.,

IMPORTERS OF PATENT MEDICINES, DRUGGISTS'
SUNDRIES, DYE GOODS,
SURGICAL INSTRUMENTS, PERFUMERY,
FANCY SOAPS, SPONGES.



IMPORTERS OF BRUSHWARE, CORDIAL MAKERS,
MACHINERY, CORKS, BOTTLES, LABELS,
PHOTOGRAPHIC CHEMICALS AND MATERIALS.

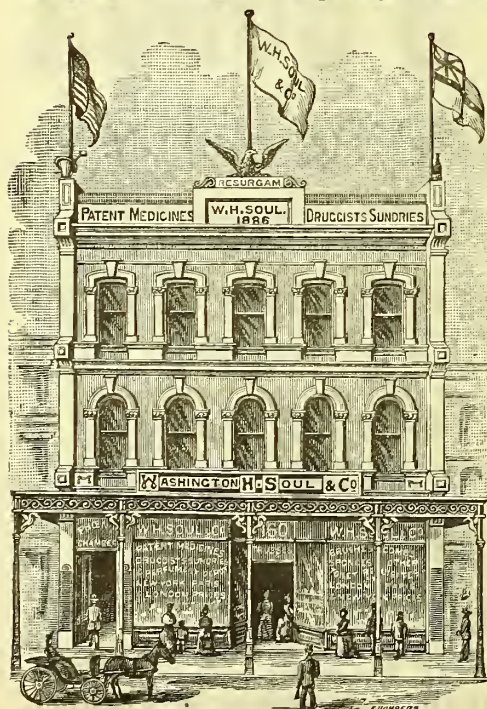
Wholesale Druggists, 19 & 21 O'Connell Street, SYDNEY.

Agencies for Patent Medicines and other Goods solicited. Travellers cover New South Wales and Queensland.

London Agents: LAUGHLAND, MACKAY & BAKER, 85 Gracechurch Street, E.C.

NEW SOUTH WALES.

W. H. SOUL & Co.



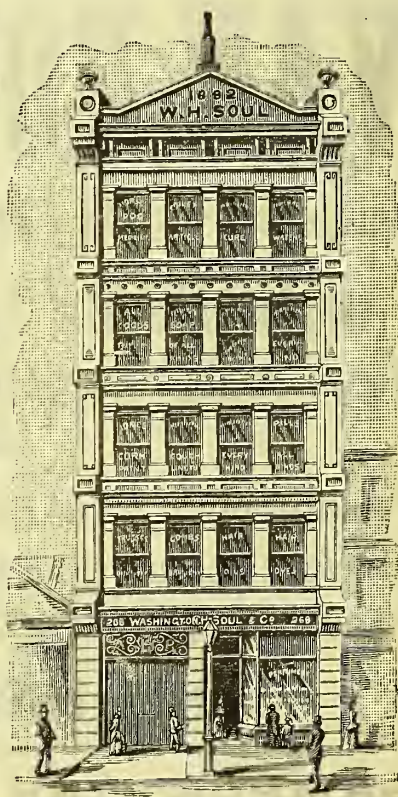
Nos. 15, 160, 162, & 263

**PITT STREET,
SYDNEY, N.S.W.**

Will be pleased to
fill any lines from their
large Stock, which the
Trade may be unable
to obtain from their
usual Jobbers.

TERMS CASH.

W. H. S. & Co. can arrange
with pushing Houses to receive
Goods on Commission for
prompt Sale in this Colony.



7 DOORS FROM KING STREET.
36

4 DOORS FROM PARK STREET.



ESTABLISHED 1870

PROSSER, TAYLOR & CO.

(LATE BERKLEY, TAYLOR & CO.).

WHOLESALE DRUGGISTS AND IMPORTERS, AND MANUFACTURING CHEMISTS BRISBANE, QUEENSLAND.

Importers of Drugs, Chemicals, and Druggists' Sundries, Patent Medicines and Perfumery; Surgical Instruments, Photographic Sundries, Confectioners' and Dyers' Goods, Dental Sundries, Soda Water Machinery, Bottling Racks, Egg-shape and Lamont's Soda Water Bottles, Corks, Essences, Labels, and all Cordial Makers' Requirements.

All parts of Queensland visited at regular intervals by experienced Travellers.

Agencies solicited from Firms who are prepared to actively introduce their Manufactures into the Colony.

LONDON AGENTS—

Messrs. LAUGHLAND, MACKAY & BAKER, 85 Gracechurch Street, E.C.

VICTORIA.

ROCKE, TOMPSITT & CO., WHOLESALE DRUGGISTS, MELBOURNE,

AND
119 & 120 LONDON WALL, E.C.

Samples and Quotations solicited.

Agencies undertaken on the most advantageous terms.

Wholesale Depot for Sander & Son's Pure Volatile Eucalyptus Oil (Eucalyptol), and Importers of Oil of Eucalyptus.

Wholesale Agents—Messrs. Hodgkinson, Prestons & King, 81 Bishopsgate Street Without, E.C.

FELTON, GRIMWADE & CO., Wholesale Druggists and Manufacturing Chemists, MELBOURNE, VICTORIA.

LONDON AGENTS:—

Messrs. GRIMWADE, BIDLEY & CO., Mildmay Chambers, 82 Bishopsgate Street.

Wholesale Agents for Bosisto's Genuine Oil of Eucalyptus.

MENTHOL Our Extra Steam Refined quality, is in firm, hard, dry and snowy white crystals, entirely free from oily contamination (and therefore of the highest melting point.) As the original and largest manufacturers in the world of the true Japan Menthol, we guarantee our brand to be absolutely pure. Beware of substitutes. For full particulars, therapeutic uses, etc. see special circulars to be had on application.

Our Extra Steam Refined Oil is treble distilled and twice rectified by steam, by an entirely new process and in apparatus of our own invention, by which all these polymeric products

PEPPERMINT of a tarry and resinous nature which are objected to by some consumers are extracted. It is of watery white colour, retaining its full aroma, pungency and strength and guaranteed absolutely pure and soluble in spirits of wine.

Yokohama,
Japan.

COCKING & Co.

Established
1868.

Commission Merchants, Wholesale Druggists and Manufacturing Chemists.

OTHER SPECIALITIES.

Cod Liver, Fish and Orange Oils, Vegetable Wax and Isinglass.

Monthly Market Report and detail circulars on application.

LONDON AGENTS:—SPIES BROS & Co., 106, Fenchurch Street.

Telegram Address—"COCKING YOKOHAMA."

This is the genuine essential oil as produced in the
CAMPHOR

manufacture of the Solid Camphor of Commerce. Our brand is guaranteed to be the natural oil and not the fictitious mixture of refuse Camphor and Turpentine generally sold. Having made a special study of its manufacture we have succeeded in producing a colourless oil and entirely free from any smell. It is a remedy in Rheumatism, a good solvent of resins, and the most perfect article for the use of the essential oil distiller.

B. G. LENNON & CO., PORT ELIZABETH & EAST LONDON, LENNON & TEBB, CAPE TOWN, Wholesale Druggists & Druggists' Sundriesmen

LONDON OFFICE: B. G. LENNON & CO., 14 BUNHILL ROW, E.C.

AGENCIES UNDERTAKEN.

NEW ZEALAND.

KEMPTHORNE, PROSSER & CO.,

NEW ZEALAND DRUG COMPANY, LIMITED,

Wholesale Druggists,

MANUFACTURING CHEMISTS, AND COMMISSION MERCHANTS,

Head Office and Factory, DUNEDIN.

BRANCH HOUSES:

High Street, CHRISTCHURCH,
Hunter Street, WELLINGTON,
Shortland Street, AUCKLAND,
Patent and Proprietary Medicines Agency.



NEW ZEALAND.

London Agents—

Messrs. GRIMWADE, RIDLEY & Co., 82 Bishopsgate Street.

TOWLE'S CHLORODYNE

In COUGHS, ASTHMA, BRONCHITIS, INFLUENZA, &c., its effects are truly wonderful, immediately relieving the tightness of the Chest, allaying irritation of the Throat, promoting Expectoration, and speedily and effectually subduing the Cough.

It soothes the weary aching of CONSUMPTION, relieves the harassing Cough, and often prevents those sleepless nights so trying to the sufferer.

In CHOLERA, DIARRHŒA, DYSENTERY, &c., it has proved itself a most valuable specific, quickly relieving the pain and spasms, and seldom failing to check the disease; for which property, as well as for its value in Sea Sickness (for which it is the best remedy known), it should be an indispensable article in every emigrant's outfit.

TESTIMONIALS.

"Superior to every other I have tried."
F. H. GREEN, M.R.C.S.
Rochdale Dispensary.

"Peculiarly serviceable in Bronchial, Spasmodic, and Neuralgic Affections."
ALFRED ASPLAND, F.R.C.S.,
Consulting Surgeon to Ashton Infirmary.

"I have used it largely in Spasmodic and Painful Affections, Bronchitis, and Neuralgia. It has the property of being readily combinable in ordinary prescriptions—an advantage over all similar preparations."

R. TRAFFORD WHITEHEAD, M.R.C.S.

A Surgeon writes:—"In Diarrhœa, Colic, Ague, Spasms, I have found it relieve more pain and cause more joy than any other article that can be named. Has proved itself a specific against sea-sickness."

Island Bridge, Dublin.

"I am pleased to say that although I have not finished a quarter of the bottle (24 9d.) the pain has left my chest, and the cough is almost well."—J. BROWN.

Immediately Relieves
COUGHS,
CONSUMPTION,
ASTHMA,
BRONCHITIS,
TIC,
SPASMS,
HYSTERIA,
DIARRHŒA,
DYSENTERY,
CHOLERA,
CRAMP, AGUE,
Sea-Sickness, &c.

REVISED PRICE LIST.

		Retail.	Per doz
		s. d.	£ s. d.
Towle's Chlorodyne	1 lb.	1 1½	0 8 6
Ditto	2 9	1 3 0	
Ditto (3 fluid oz.)	4 6	1 16 0	
Ditto (8 ")	11 0	4 13 0	
Liq. Chlorodyni (Original and only Genuine Preparation) ½ lb.	2/6 each		
Ditto ditto 1 lb.	4/6 "		
Ditto ditto 1 lb.	8/- "		
Winchester Quarts (6 lb.) 7/6 per lb., bottles free.			
Towle's Antibilious Pills	1 1½	0 8 6	
Ditto	2 9	1 3 3	
Towle's Chlorodyne Lozenges }	0 7½	0 5 6	
Ditto Jujubes }	1 1½	0 8 0	
Ditto in bulk, bottles free, containing 1 lb., 2/9 each.			
Ditto ditto 1 lb. 10 oz., 4/6 "			
Ditto ditto 4 lb., 10/- "			
N.B.—The Commissioners will allow them to be sold by the retailers without further duty, provided they are simply wrapped in paper, and not enclosed in a box, bottle, or packet.			
Thornton's Celebrated Toilet Cream	1 0	0 9 0	
Ditto	1 8	0 14 0	
Ditto	2 8	1 4 0	
Amboline (Registered Trade Mark)	2 8	1 4 0	
The Thornton (Red) Lotion (Stamped)	2 8	1 4 0	
Thornton's Paragon Hair Wash	1 0	0 9 0	
Ditto	2 6	1 4 0	

Posters, Bills, and Showcards on application.

£5 worth (assorted or otherwise) Carriage Paid.

7 lb. Lozenges and upwards stamped with Chemists' own name, free of charge.

A. P. TOWLE & SON.

75 BACK PICCADILLY,
MANCHESTER.

HALF A CENTURY OF SUCCESS

THE ONLY GENUINE MINT ALCOHOL IS

DE RICQLÈS'

MINT ALCOHOL.

Recommended by the highest Medical Authorities for Indigestion, Stomach Ache, Heartburn, and Headache. It dispels immediately all uncomfortable feeling. Indispensable during the hot weather. An excellent article for the Toilet and Teeth. A grand Preservative during periods of Epidemics.

53 AWARDS, of which 15 are Diplomas of Honour & 14 Gold Medals. DEPOTS EVERYWHERE.

Manufactory at Lyons (France), 9 Cours d'Herbouville.
PARIS, 41 rue Richer.

Insist on the name De Ricqlès.

JULIUS LEVY,
WHOLESALE DRUGGIST & SUNDRYMAN,
CHARLOTTE PLACE, SYDNEY.

BRANCH—15 & 17 FLINDERS LANE, MELBOURNE.

AGENT FOR

HEINRICH HAENSEL'S Olea ætherea sine terpeno.

E. MERCK, Alkaloids and Glucosides.

GUSTAV LOHSE, Lily of the Valley Perfumery.

ROBERT FRÈRES, Triple Extraits.

Correspondence invited. Special facilities for introducing new lines.

INDIA.

PEAKE, ALLEN & CO.

CHEMISTS, DRUGGISTS,
AND
GENERAL MERCHANTS,
LUCKNOW, OUDH, INDIA,

Possess exceptional facilities for the introduction of NEW SPECIALITIES, Patent Medicines, Druggists' Sundries, Perfumery, &c.

PURE CARBONATE OF LITHIA

and all other Lithia Salts.

MERCURIALS

Calomel, Corrosive Sublimate, Oxides, &c.

IODOFORM

Chloral, Terpene, Osmic Acid, Tannin, Tartar Emetic.
LIQUID CHLORIDE OF METHYL, for the treatment of Rheumatism, Neuralgia, &c.

GRAND PRIX, PARIS EXHIBITION, 1889.

Wholesale from FURST BROS., 4 Copthall Buildings, London, E.C.

Sole Agents for BILLAULT, Rue Sorbonne, PARIS.
N.B.—Stock of the above kept in London.

40

UNITED STATES.

B. KEITH & CO.,

MANUFACTURERS OF

PURE CONCENTRATED MEDICINES, CONCENTRATED TINCTURES, ETC.

We make a full line of RESINOIDS, such as PODOPHYLLIN, LEPTANDRIN, EUONYMIN, IRISIN, HYDRASTIN, &c., ALL PURE.

So-called Concentrations are in the market, called by the same name as manufactures, that are made by triturating extracts etc., with sugar of milk, powdered root, etc

WHAT ARE CONCENTRATED TINCTURES?

They are not made from the crude material, but by dissolving the active principles in Alcohol in definite proportions, and invariably represent a uniform amount of therapeutic power.

Send for printed matter on CON. TINCT. AVENA SATIVA in the Morphia or Opium Habit, and certificates from different members of the Medical Profession, citing cases under their charge, treated by it; also REVISED AND ENLARGED MANUAL; also Price Lists, to

B. KEITH & CO.,
75 WILLIAM STREET NEW YORK, U.S.A.

MANUFACTURERS

OF

GOODS ADAPTED TO THE DRUG TRADE
ARE OFFERED

Special facilities for the Sale of
such in the United States

BY

E. C. RICH CO., Ltd.

167 Chambers Street, 201 State Street,
NEW YORK, U.S.A. BOSTON, U.S.A.

Satisfactory references. Correspondence solicited.

GUSTAVE CHANTEAUD,
64 RUE DE TURENNE, PARIS.
FACTORY AT VENDOME.

GUSTAVE CHANTEAUD'S SEIDLITZ.

Granulated, effervescent.

In cases containing 100 bottles £5
DOSIMETRIC GRANULES, in boxes of 10 tubes.
SOLUBLE "LENTILLES" (Lentil-shaped pastilles),
for Hypodermic Injection.

Gustave Chanteaud's special syringe for using the Soluble "Lentilles."

Triturated "Lentilles" for administration by the mouth.

Antiseptic "Lentilles" for external use.

General Prices Current and conditions of sale furnished on application.

FRATELLI DE PASQUALE & CO.

LARGO MUNIZIONE, MESSINA, SICILY,

MANUFACTURERS, ESTABLISHED ON THE VERY GROWTH PLACE, FOR THE FINEST

ESSENTIAL OILS

Of Lemon, Bergamot, Sweet and Bitter Orange. Recently Awarded at the Exhibitions of

CALTANISSETTA, 1879—A Gold Medal and 200 Liras for Invention of Machinery to the use of their Manufactory, and Silver Medal for Excellence of Produce.

MILAN, 1881—A Bronze Medal for Excellence of Produce.

MELBOURNE, 1881—A First Order of Merit for Excellence of Produce.

MESSINA, 1882—A Gold Medal and 150 Liras for an ample set of Machines to the use of their Manufactory, and a Bronze Medal for Excellence of Produce.

A first trial order is quite sufficient to remain convinced of the Excellence of our Essences.

Samples and all particulars may be had from our Wholesale Agents—

SAM'L LAMBERT & CO., DRUG BROKERS, 132 Fenchurch St., LONDON.

F. H. FAULDING & CO.

Wholesale and Manufacturing Chymists & Druggists,

ADELAIDE (SOUTH AUSTRALIA).

ESTABLISHED 1845.

LONDON OFFICE:—132 FENCHURCH STREET, E.C.

J. BERNHARDI, LEIPZIG.

BOTANIC DRUGS for Home & Export.

GERMAN TINCTURES IN BOND.

SCHOELLKOPF, HARTFORD & MACLAGAN, LIM.

3 CEDAR STREET, NEW YORK.

Cable Address—"JUBILANT NEWYORK."

SPÉCIALITÉ:—AMERICAN DRUGS—ENGLISH SUPERVISION.

Largest Dealers of "CASCARA SAGRADA" in the World.

SOLE BRITISH AGENTS—

SAM'L LAMBERT & CO., 132 Fenchurch St.

LIQUOR CERII
[BRADY & MARTIN]
 A PREPARATION OF CERIUM OXIDE (CAREFULLY PURIFIED)
 IN COMBINATION WITH CITRIC ACID AND AMMONIA

DOSE—3j DILUTED.
 EQUIVALENT TO A FULL DOSE OF CERIUM OXALATE

PREPARED ONLY BY
BRADY & MARTIN
NEWCASTLE-ON-TYNE

REGISTERED

COPYRIGHT AND REGISTERED LABEL.

LIQUOR CERII

(BRADY & MARTIN)

See Advertisement, January 26, 1889, page 119. Also Circular stating Uses of Cerium, Testimonials, &c., post free on application to Brady & Martin.

Sold only in bottles with BRADY & MARTIN'S Registered Trade Mark on the Label and over the Cork.

8 oz., 16 oz., and 32 oz., each 2/6, 4/, and 7/6.

Physicians are respectfully requested to write on prescriptions—



Liquor Cerii "BrM"

PREPARED ONLY BY THE SOLE PROPRIETORS—

N. H. MARTIN,

O. E. STUART, B.S.O.

BRADY & MARTIN,

WHOLESALE DRUGGISTS, MANUFACTURING PHARMACISTS, AND ANALYTICAL CHEMISTS,
NEWCASTLE-UPON-TYNE.

Agents—LONDON: EVANS, LESCHER & WEBB, 60 Bartholomew Close, E.C.; S. MAW, SON & THOMPSON, 7 to 11 Aldersgate Street, E.C.; W. EDWARDS & SON, 157 Queen Victoria Street, E.C. LEEDS: REYNOLDS & BRANSON, 13 Briggate. LIVERPOOL: EVANS, SONS & CO., 56 Hanover Street.

BARRON, HARVEYS & CO.**GILTSPUR STREET, LONDON, E.C.**

Beg to inform their friends and the Trade generally that, having purchased the Business of

BARRON, SQUIRE & CO., BUSH LANE,

and also the various Formulæ of the Special Preparations of

JAMES BASS & SONS, HATTON GARDEN,

they are prepared to execute orders for the same, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

ESTABLISHED 1813.**CLAY, DOD & COMPANY,****WHOLESALE AND EXPORT DRUGGISTS,****52 ST. ANNE STREET, LIVERPOOL.**

Address for Telegrams—"CLAY LIVERPOOL."

Telephone No. 1192.

Mills and Laboratories—WAKEFIELD STREET.

IMPORTERS OF ESSENTIAL OILS, OLIVE OILS,
FINEST QUALITY NORWEGIAN COD LIVER OIL.

Manufacturers of all descriptions of

PHARMACEUTICAL PREPARATIONS, COATED TASTELESS PILLS.

Powders ground in own mills. Purity guaranteed. Bituminol equal to, and cheaper than, Vaseline.

Samples free on application. Special Quotation to Cash or Large Buyers. Monthly Priced List forwarded on receipt of business card.

WYLEYS & CO.

MANUFACTURING CHEMISTS

AND

DRUG GRINDERS.

WAREHOUSES, LABORATORIES, AND DRUG MILLS,
COVENTRY.

WYLEYS' PEARL-COATED PILLS.

All mixing, cutting, rounding, picking, &c., is accomplished with the aid of steam machinery, by which means we attain a uniformity in composition and size such as cannot be equalled by hand-work.

For finish, and general good appearance, they will compare most favourably with any in the market.

WYLEYS' GELATINE-COATED OVAL PILLS.

The only oval gelatine-coated pills of English manufacture in the market.

Our "Prices Current" contains an extensive list of coated pills, showing formulæ and prices, together with a number of TESTIMONIALS. Estimates for private formulæ supplied.

COMPOUND SULPHUR PELLETS

ACCORDING TO THE FORMULA OF

SIR ALFRED B. GARROD.

Each Pellet contains Five Grains of Pure Sulphur and One Grain of Cream of Tartar.

PRICE, in bulk, 2/6 per lb.; or put up in metallic boxes (20 pellets in each), with descriptive labels, 2/- per dozen.

GASTRIC ANTACID PELLETS,

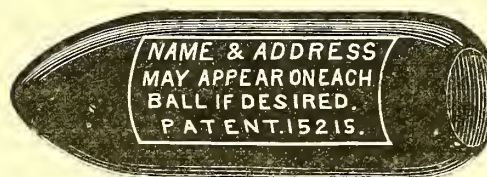
ACCORDING TO THE FORMULA OF

SIR WILLIAM ROBERTS.

PRICE, in bulk, 2/6 per lb.; or put up in metallic boxes (20 pellets in each), with descriptive labels, 2/- per dozen.

THE DURAPLASTIC COATED HORSE BALL.

(PATENTED.)



"The obvious superiority of these balls over the old paper-wrapped articles will impress the most stolidly conservative of farmers."—*The Chemist and Druggist*, October 27, 1888.

No. 4.—Alterative Balls	...	...	24/	per gross.
" 5.—Astringent Balls	...	...	24/	"
" 12.—Condition Balls	...	...	24/	"
" 6.—Cordial Balls	...	...	24/	"
" 7.—Cough Balls	...	...	24/	"
" 16.—Cough Balls	...	...	27/	"
" 17.—Cough Balls	...	...	27/	"
" 8.—Diuretic Balls	...	...	24/	"
" 9.—Fever Balls...	...	...	24/	"
" 1.—Physic Balls	...	...	24/	"
" 2.—Physic Balls	...	...	30/	"
" 3.—Physic Balls	...	...	36/	"
" 18.—Physic Balls	...	...	42/	"
" 19.—Physic Balls	...	...	48/	"
" 15.—Stimulating Balls	...	...	24/	"
" 10.—Tonic Balls...	...	...	24/	"
" 11.—Tonic Balls...	...	...	20/	"
" 13.—Worm Balls	...	...	30/	"
" 14.—Worm Balls	...	...	60/	"

PRIVATE FORMULÆ.

WYLEYS & CO. will be glad to prepare Patent Duraplastic Balls from private recipes.

London International and Universal Exhibition, 1884, Gold Medal Awarded for our Pharmaceutical Preparations.
Calcutta Exhibition, First-class Certificate and Two Prize Medals Awarded for our Pharmaceutical Preparations

HEWLETT'S MIST. PEPSINÆ CO. C. BISMUTHO

Highly recommended in various forms of dyspepsia, having a direct action upon the mucous membrane of the stomach and intestines as a sedative. It can be administered with marked and almost instantaneous effect in the irritative form of dyspepsia more especially when *pyrosis* is a conspicuous symptom, and pain occurs an hour or more after food. In simple neuralgic gastric pain following eating, occurring in feeble subjects, it is especially indicated, and even in *carcinoma* it has been used with great success in alleviating pain and vomiting.

In the dyspepsia of patients dependent upon some organic disease, and where there is a decided loss of nerve power, it is of singular service. Thus, for instance, a person after a meal complains of a peculiar gnawing and emptiness, with slight pain at the epigastrium, evident signs of general relaxation and loss of nerve power, clinical experience has shown that it is of great service as a tonic and stomachic. A portion of its value arises, it may be, from its action upon the spinal motor nerve centres. Be these things as they may, experience has abundantly demonstrated the value of the compound as a stomachic, anti-dyspeptic, and tonic, in general functional atony and relaxation, and in the various forms of dyspepsia, constipation, or diarrhoea, connected with atony of the visceral muscular coat, the Mist. Pepsinæ Co. c. Bismutho is a very valuable remedy. In the *exhausting purging of Phthisis*, accompanied with night sweats and restlessness, Dr. MATHEWS, of Nantwich, has used it with marked and appreciable effect.

Price (in England) 10s. 6d. per pound.

Physicians will oblige, when ordering Mist. Pepsinæ Co. c. Bismutho, by writing Mist. Pepsinæ Co. (Hewlett's).

Packed (for Dispensing only) in 10-oz., 22-oz., 40-oz., and 90-oz. Bottles.

LONDON MEDICAL RECORD REPORT.

MISTURA PEPSINÆ COMPOSITA CUM BISMUTHO.

"This combination of Messrs. HEWLETT is one which has been extensively tested, and with good results. It is justly popular in the profession as a very valuable and effective combination. It serves not only to improve *apepsia*, but to lessen the gastric pain and to facilitate difficult and painful digestion, without setting up any evils of its own. It is a very good crutch for persons of weak stomach to lean on."—January 15th, 1881.

C. J. HEWLETT & SON,

MANUFACTURING CHEMISTS,

40, 41 & 42 CHARLOTTE STREET, LONDON, E.C.

[Established 1832.]

DR. JOHN FRANCIS CHURCHILL'S INHALANT



REGISTERED.

"SPIRONE"

TRADE MARK.

FOR THE TREATMENT AND CURE OF ALL

DISEASES OF THE LUNGS, WINDPIPE, NOSE, AND THROAT,

Claims to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in

COUGHS AND COLDS, ASTHMA, BRONCHITIS,

Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

None Genuine except such as bears the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottle on the Label over the Cork, and on the Wrapper,

JOHN FRANCIS CHURCHILL, M.D. (Paris),

The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites

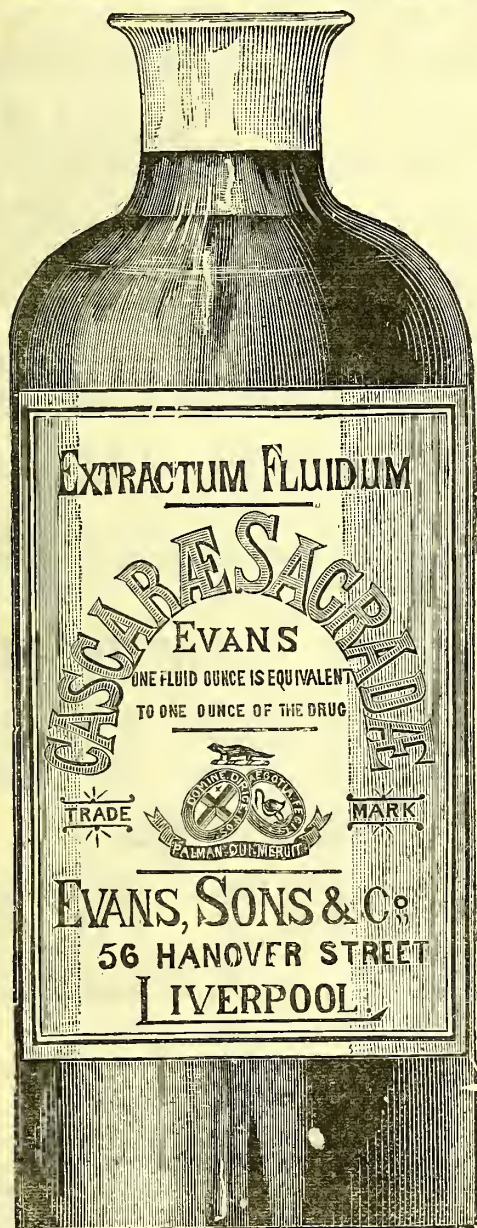
Price 4s. 6d. and 11s. per Bottle.

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS AND SHOWCARDS FREE ON APPLICATION.

THE SPIRONE COMPANY, Lim., Depot—17A Duke St., Manchester Square, LONDON, W.

EVANS' FLUID EXTRACTS.

SPECIMEN OF BOTTLE AND FRONT LABEL.



EVANS' FLUID EXTRACTS are now perfected in our laboratories. They are prepared by elaborate processes, with the menstruum most suited to each individual drug; they contain the whole of the active medicinal properties. Infusions, decoctions, tinctures, wines, and syrups can be obtained from these fluid extracts, by mixing one minim for every grain of the drug. They are put up in actinic glass bottles, of 5, 10, and 20 fluid ounces, capsuled with a large gold front label; a special feature, to assist in dispensing, is the back label, containing full scientific names, botanical origin, description, medical properties, dose, strength, active ingredients, &c.

Complete List and Prices on application.

EVANS' SALINE.

(EFFERVESCENT.)

This preparation is a Mixture, in definite proportions, of Chlorate of Potash, English Tartaric Acid, Bicarbonate of Soda, and a little Cane Sugar. The proportion of these ingredients always remains the same. This and the pleasant excess of acid characterise EVANS' SALINE. A dry mobile powder, dissolving perfectly.

BOTTLES, WITH CHEMISTS' OWN NAME, OR IN BULK.

NEW ARTISTIC DESIGNS FOR WRAPPERS FOR 1890.

EVANS' OL. RICINI SINE SAPORE.

(TASTELESS.)

This CASTOR OIL is EXPRESSLY AND SOLELY manufactured for us. It is produced by a process which removes the taste, though not the efficacious properties.

EVANS' COATED PILLS.

Pearl coated, readily soluble, prepared in our own laboratory, with best drugs only, such as are used in all Evans' Pharmaceutical Preparations.

New Enlarged List for 1890 of several hundred formulæ on application.

EVANS' INSECT POWDER

Imported and freshly ground at their own mills from *Closed Flowers*.

In bulk, or in 6*l.* and 1*s.* tins, with perforated rotary top.

RECENT MATERIA MEDICA

By F. HARWOOD LESCHER, F.C.S.

Third Edition.

The characteristics of about 300 of the Drugs and Chemicals recently introduced into Medicine, with their Therapeutics, Authorities, Doses, Formulæ. Among them are full information about Sozoiodol, Pyrocin, Salix Nigra, Pichi, Jacaranda, Terpin, Thallin, Salol, Iodol, Jambul, Pyridin, Exalgine, &c., &c.

Price 2/6, post free 2/8, post free abroad 3/.

LONDON:
EVANS, LESCHER & WEBB,

60 BARTHOLOMEW CLOSE.

LIVERPOOL:
EVANS, SONS & CO.

56 HANOVER STREET.

[6]

Canada: EVANS AND SONS (LIMITED), Montreal and Toronto.

NOTICE.

TOWLE'S PENNYROYAL & STEEL PILLS

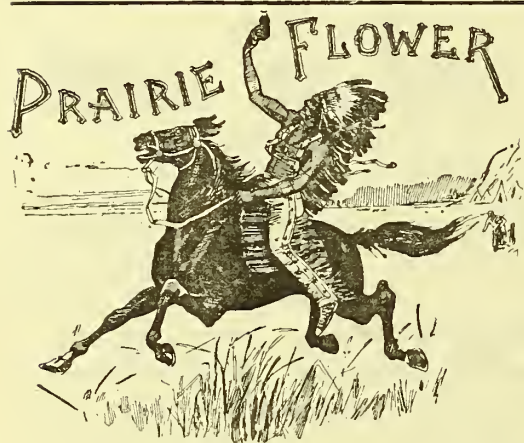
Mr. E. T. TOWLE, of Dryden Street, Nottingham, Chemist and Druggist, begs to inform the Trade and the Public that he is possessed of the sole right to manufacture and sell TOWLE'S PENNYROYAL AND STEEL PILLS, and no other person or firm is intrusted in such business.

All orders to be addressed to Mr. E. T. TOWLE, or to his recognised Agents.

(Signed) **EDWD. T. TOWLE**, Nottingham.



CAUTION. Immediate proceedings will be taken against all persons pirating the Title, Name, or Trade Mark.



SEQUAH, LIMITED, desire to call the special attention of the Trade to their Preparations—

SEQUAH'S PRAIRIE FLOWER SEQUAH'S OIL,

which have an immense sale all over Great Britain. They wish to point out the fact that all vendors of their Preparations are bound by agreement to Retail Goods at ONE SPECIFIED PRICE ONLY, thus ensuring a fair profit to the Trade, and a mutual protection to manufacturers and retailers.

SEQUAH, LIMITED
46 FARRINGDON STREET, LONDON.

BUYERS ARE CAUTIONED TO SEE THAT THEY GET THE



GENUINE DR. JOHN HOOPER'S PILLS,

Which may be known by the Name of the Inventor being on the Government Stamp.

Handbills and Show Cards will be sent on application to

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

AMERICAN BUYERS are particularly Cautioned !!

Telegraphic Address—"FEEDING BOTTLES LONDON."

EXTRACTUM SENNAE LEGUMINUM LIQUIDUM;

Or, FLUID EXTRACT OF SENNA PODS (RANKIN & BORLAND'S).

A pleasant, mild, and efficacious Aperient, superior in many respects to Cascara Sagrada. Dose—From $\frac{1}{2}$ to 1 Fluid Drachm
See Paper by Dr. MACFARLANE in *The Lancet* of Saturday, July 27th, 1889, p. 164.

Prepared by **RANKIN & BORLAND**, Pharmaceutical Chemists, **KILMARNOCK, N.B.**

HUMPHREY DAVY & SON (LIM.)

MANUFACTURING CHEMISTS AND PERFUMERS,

WHOLESALE & EXPORT DRYSALTERS, OIL MERCHANTS & PACKERS,
MANUFACTURERS OF

FURNITURE CREAM, POLISHING PASTE, WRITING INKS, LIQUID BLUE,
KNIFE POLISH, PLATE POWDER, &c.

VICTORIA WORKS, Masbro Street, ROTHERHAM.

OPPENHEIMER'S
CREAM OF MALT
 (REGISTERED),
 WITH COD-LIVER OIL,
 AND THE
 HYPOPHOSPHITES OF LIME, POTASH, AND SODA.

Can be obtained from all Wholesale Houses, or direct from the Sole Manufacturers,

OPPENHEIMER BROS. & CO., Manufacturing Chemists,
 1 & 3 SUN STREET, FINSBURY SQUARE, LONDON, E.C.

CHEMISTS WHO HAVE FAILED

To find a suitable Malt Extract should give Loefflund's a trial. It neither ferments nor crystallises, and is absolutely pure.
 In 2 cwt. casks, 28 lb. tins, 7 lb. tins. Also Malt Extract and Cod Liver Oil in Bulk.

LOEFLUND'S

KINDERMILCH & ALPINE MILK BISCUITS (POWDERED) (INFANT'S FOODS)

Are prescribed by the leading specialists in diseases of children.

LOEFLUND'S CREAM EMULSION (Cremor Hordeatus)

Is invaluable to those who cannot assimilate Cod Liver Oil.

Sole Agents—**ROBERT BAELEZ & CO., 14-20 ST. MARY AXE, E.C.**

J. F. MACFARLAN & CO.,

MANUFACTURERS OF

MORPHIA AND ITS SALTS,

AND ALL PRODUCTS FROM OPIUM.

PURE CHLOROFORM

ANSWERING ALL THE TESTS OF THE BRITISH PHARMACOPŒIA.

ANÆSTHETIC ETHER, ALOIN, BEBEERIN, CHRYSOPHANIC ACID, SALICIN.

MAY BE HAD FROM ALL THE WHOLESALE HOUSES, AND AT

17 NORTH BRIDGE, EDINBURGH, AND 71 COLEMAN STREET, LONDON.

YOUNG & POSTANS. BISMUTH, PEPSINE & STEEL

GRAN. EFFER. BISMUTH AND PEPSINE
 GRAN. EFFER. BISMUTH, PEPSINE AND STRYCHNINE
 GRAN. EFFER. BISMUTH, PEPSINE AND QUININE
 GRAN. EFFER. BISMUTH, IRON AND QUININE
 GRAN. EFFER. BISMUTH CITRATE
 GRAN. EFFER. BISMUTH, IRON AND STRYCHNINE
 GRAN. EFFER. CITRATE OF CAFFEINE.

GRAN. EFFER. IRON AND BISMUTH
 GRAN. EFFER. IRON, QUININE AND STRYCHNINE
 GRAN. EFFER. IRON AND ARSENIC
 GRAN. EFFER. IRON AND PEPSINE
 GRAN. EFFER. IRON AND QUININE
 GRAN. EFFER. IRON, QUININE AND PEPSINE
 GRAN. EFFER. HYDROBROMATE OF CAFFEINE.

AND ALL OTHER GRANULAR PREPARATIONS.

Now prepared only by **CURTIS & COMPANY, 48 Baker Street, Portman Square, LONDON, W.**

GRANULAR EFFERVESCENT ANTIPYRIN.

(Each Teaspoonful contains 8 grains.)

Introduced by Curtis & Co.

See that these preparations bear our name.

ALOIN,

THE ACTIVE PRINCIPLE OF ALOES,

MANUFACTURED BY THE DISCOVERERS—
T. & H. SMITH & CO., EDINBURGH AND LONDON.

"The uniformity in strength of Aloin, the smallness of its dose, and the certainty of its action, should commend it to the favourable consideration of all medical practitioners."—*Vide* Dr. Wm. Craig's investigations respecting our Aloin, published in the *Edinburgh Medical Journal* for May 1875.

Edinburgh Address—21 Duke St. London Address—12 Worship St., E.C.
 New York Office—20 Cedar Street: FRA^s. JAS. MACNAUGHTAN, Agent. [3]

TYPKE & KING,

Trade Mark CHEMICAL MANUFACTURERS, Trade Mark



22 LAURENCE POUNTNEY LANE,
 LONDON, E.C.



Registered. Manufactories: MITCHAM & RAINHAM. Registe ed.

Pure Acids—VALERIANIC ACID and all VALERIANATES. ANTIMONY GOLDEN SULPHURET, ANTIM: CROCUS LUMP and POWDER. Essences of Pear and Pineapple. POTASSIUM CYANIDE. Nitrate of Ammonia, crystal and granulated. Potass. Sulphid. Iron Perchloride, solid and solution. HYPOPHOSPHITES OF LIME, MANGANESE, SODA, POTASH, &c. ACID PHOSPHORIC 1750 and 1500.

Hydrochinon and all Chemicals for Photography.

DINNEFORD'S FLUID MAGNESIA



PERFECT IN PURITY AND UNIFORM IN STRENGTH.

The most efficacious antacid and mild aperient for Delicate Constitutions.
 Ladies, Children, and Infants.

OF ALL WHOLESALE DRUGGISTS.



USED BY SURGEONS ALL OVER THE WORLD.

In ONE WEEK three curious uses were reported for which
"THE LEICESTER" IMPROVED ADHESIVE PLASTER,
On Fine Flesh-coloured Cambrio,
 is found the best, after trying other makes (in the first case, nearly every known plaster). A well-known actor said he had the good fortune to meet with it in the South of England, and had inquired for it wherever he went since. It is the only plaster he can find to answer for fixing false hair, &c. A chemist in the North wrote and said a lady violinist would have nothing else; she uses it to make a pad to protect her fingers. A chemist in Yorkshire has a customer who uses plaster to keep his eyes open, and nothing will hold the lids up so well as "The Leicester" Improved Adhesive Plaster on Fine Flesh-coloured Cambrio. Surgeons in all parts are frequently commending it. The Sale rapidly increases.

All
 Wholesale
 Houses.

PETER HOLLER'S

43
 SNOW HILL
 E.C.

LONDON, CHRISTIANIA, STAMSUND, AND SYLTEFJORD.

HOLLOWAY'S PILLS & OINTMENT

Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

Professor HOLLOWAY'S Establishment,
 78 New Oxford St. (late 533 Oxford St.), London,

And sold at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box or Pot. Chemists and Druggists selling "Holloway's Pills and Ointment" can on application to the above address, or to the Wholesale House with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

SPONGE IMPORTERS.

M. PETERSON & CO.

(ESTABLISHED 1870),

75 ST. ANNE STREET, LIVERPOOL.

FOR HOME, FOREIGN, & COLONIAL MARKET

48

J. ROBBINS & CO.

METHYLENE.

Obtained by the action of Metallic Zinc on Chloroform and Alcohol.
 Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.
 Bottles, 16s.; 5-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.
COMPOUND ANÆSTHETIC ETHER,
 For producing Local Anæsthesia.
 In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.

147 OXFORD ST.

J. ROBBINS & CO.

OZONIC ETHER.

In 2-oz., 4-oz., 8-oz., and 16-oz. Stopped Bottles, 2s., 3s. 6d., 7s., and
PEROXIDE OF HYDROGEN.
 First introduced as a Medicine by Dr. RICHARDSON.
ETHYLATE OF SODIUM
 Dr. RICHARDSON'S Formula, for removing Nævi, &c. In 4-oz. & 1-oz. Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. &
STYPTIC COLLOID,
 For promoting the Healing of Wounds by the first intent
 In 2-oz. and 4-oz. Bottles, with Brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.
CHARCOAL CAPSULES
 Containing Pure Vegetable Ivory Charcoal.
 In Boxes, 2s. 6d. each.

147 OXFORD ST.

MORRIS & CALLARD,

PONTAMMAN CHEMICAL WORKS,
AMMANFORD, R.S.O., CARMARTHENSHIRE,
MANUFACTURERS OF
ACETIC ACID, P.B., ACETIC ACID FORT., SP. GR. 1.040,
ACETATE OF SODA,
PURE WOOD NAPHTHA, SULPHURIC ACID, & CHARCOAL

Telegraphic Address: "CALLARD, AMMANFORD."

PRICES AND SAMPLES ON APPLICATION.

LOFTHOUSE & SALTMER,

MANUFACTURING CHEMISTS, WHOLESALE & EXPORT DRUG MERCHANTS,
HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles.
QUOTATIONS ON APPLICATION.

SOLUT. ÆTHERIS NITROSI (Æther. Hyponit.)

1 part to 5 Sp. Vini Rect. 56 o.p. makes Sp. Æth. Nit. 850.
This concentrated preparation, carefully drawn in our own laboratory, is highly recommended, and daily finding increased favour with the trade for making Sp. Nitre, as required for use, thus avoiding the risk of loss of Nitrous Æther, and the development of free acid, both of which are almost certain to occur in Spts. Nitre which has been some time drawn.

Price in 1lb. Bottles, 3s. per lb.; in Winchester Quarts, 2s. 10d. per lb., net.

Importers of Cod Liver, Castor, and Olive Oils; Otto de Rose, and all Essential Oils; Valentia Saffron; Vanillas; Fruit Essences; Carmine; Aniline Dyes; Bees Wax, &c., &c. Applications for Special Quotations invited.

C. R. BARKER, STAGG & MORGAN

WHOLESALE & EXPORT DRUGGISTS

MANUFACTURING CHEMISTS

IMPORTERS & DISTILLERS of ESSENTIAL OILS



PHARMACEUTICAL EXTRACTS—FLUID AND SOLID.

STANDARDIZED AND GUARANTEED DRUGS AND PREPARATIONS.

15 LAURENCE POUNTNEY LANE, & ARTHUR ST. WEST, LONDON, E.C.

REGISTERED ADDRESS FOR TELEGRAMS—"EDULCINE LONDON." Telephone No. 1949.

PAPAIN (Dr. Finkler & Co.)

The new DIGESTIVE
FERMENT, combining the
action of Pepsine and Pan-
creatine.

PIL PAPAIN (Dr. Finkler & Co.) In Bottles of 25, 50, and 100 (1 and 2 grains each)

PURE SALOL

(Professor NENCKI'S PATENT.)
The New Antiseptic and Anti-Rheumatic Remedy. Most valuable in the cure of Acute and Chronic Rheumatism, Dysentery, Cholera, &c.

QUININE SULPHATE

And all other ALKALOIDS obtained from Cinchona Bark
manufactured by the

FABBRICA LOMBARDA DI PRODOTTI CHIMICI, MILAN.

OBTAINABLE THROUGH THE WHOLESALE AGENT—

B. KÜHN, 36 St. Mary-at-Hill, LONDON

And all the Wholesale Drug Houses.

Price List and Pamphlets on application.

WITHOUT A RIVAL!

From the time Medicine was first discovered by the Ancients down to the present none ever made such progress as

BEECHAM'S PILLS.



They stand without a rival, and have by far the largest sale of any Patent Medicine in the World. This is a fact which every business man is bound to admit.

All Foreign Dealers will find BEECHAM'S PILLS the most Saleable Medicine in the Market.

The health-restoring and life-giving properties of these Pills are such as to increase their demand every year.

The words "BEECHAM'S PILLS, SAINT HELENS," are on the Government Stamp affixed to each box.

Prepared only and sold by the Proprietor, THOMAS BEECHAM, ST. HELENS, LANCASHIRE, ENGLAND, in boxes at 1s. 1½d. and 2s. 9d. each, with full instructions for use.

JOHNS'

The Best and Safest Medicine for all Disorders of the Liver and Digestive Organs; also invaluable in all Female Complaints.

Full
Directions
with each Box

LIVER PILLS.

PREPARED AND SOLD BY

W. JOHNS, 6 Wilkes St., LONDON, E.

In Boxes 1s. 1½d. and 2s. 9d. each.

(ESTABLISHED UPWARDS OF 50 YEARS.)

W. EDWARDS & SON,

157 QUEEN VICTORIA STREET, LONDON,

WHOLESALE AND EXPORT DEALERS IN

Patent Medicines and Proprietary Articles,

ENGLISH, AMERICAN, FRENCH, &c.

SOLE AGENTS for ROCHE'S HERBAL EMBROCATION,

Burchell's Anodyne Necklaces, Ford's Balsam of Horehound, Widow Welch's Pills, by Mrs. Smithers, Oxley's Essence Ginger, and the preparations of Messrs. Hudson & Son, late of the Haymarket, London.

PRICE LISTS SENT ON APPLICATION. ORDERS CAREFULLY AND PROMPTLY EXECUTED

"CUTTING COUNTERACTED."

MOONSEED BITTERS brings FULL PRICES.

WHY?

Because every one who retails Moonseed Bitters has to sign an Agreement or Contract in the following terms:—



MOONSEED BITTERS.

Above is Facsimile of
THE WRAPPER LABEL
of the 2/9 size.
It is also sold at 4/6.

MOONSEED OINTMENT.

Retails at 1/1½, 2/9, 4/6 per box.

Memorandum of Agreement made this.....day of..... 1889, between A. E. POWELL & COMPANY, of Swindon in the County of Wilts, Proprietors of the Moonseed Bitters and Moonseed Ointment (hereinafter called the "Vendors"), of the one part and of (hereinafter called "the Purchasers"), of the other part.

Whereby it is mutually agreed between the said parties hereto as follows:—

In consideration of the Vendors selling to and supplying the Purchasers with Moonseed Bitters, Moonseed Ointment, and other preparations manufactured and sold by them (hereinafter termed "the Goods") at their usual prices, the Purchasers will observe and perform the following terms and conditions:—

1. The Purchasers to sell the Goods retail for full printed prices only, and for each and every Bottle or Box of Moonseed Bitters, Ointment, or Pills sold by him or them at any less price, without the written consent of the Vendors, the Purchasers shall pay to the Vendors the Sum of Twenty Shillings in the nature of a penalty, to be recoverable as ascertained liquidated damages.

2. The Purchasers not to supply any Wholesale House nor to sell the Goods wholesale to any Chemist or Druggist or Medicine Vendor who will not previously enter into an Agreement to retail the same at prices in accordance with the preceding Clause No. 1 of these presents.

All Purchasers who have signed a similar form of Agreement to the foregoing will be supplied upon the Vendors' usual trade terms, but those Purchasers who do not sign a similar form of Agreement to be supplied upon the following terms only, namely:—RETAIL, 4s. 5d. for each and every 4s. 6d. Box or Bottle, 2s. 8d. for each and every 2s. 9d. Box or Bottle, and 1s. 0½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. WHOLESALE, 4s. 4d. for each and every 4s. 6d. Box and Bottle, 2s. 7d. for each and every 2s. 9d. Box or Bottle, and 11½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. This Agreement and the terms and conditions herein contained to remain in full force and virtue for the term of 7 years from the first day of March, 1889.

As witness the hands of the said parties hereto the day and year first above written.

We call attention to the important steps which we have taken to prevent our specialities being retailed at less than the advertised prices, and we ask the co-operation of the Trade in maintaining the integrity of the scheme whereby the sale of our preparations may always be retained by the legitimate trade. We will not only endeavour, by all means in our power, to prevent the advertised prices being "cut," but will give Chemists every assistance and facility for making this a large as well as a paying business.

Please write for Terms and Form of Agreement. NOTE that we allow retailers of Moonseed Bitters 2s. 6d. per thousand for the Distribution of Pamphlets.

A. E. POWELL & CO., SWINDON.

PARIS EXHIBITION, 1889.
PRIZE MEDAL AWARDED TO



"SALVO PETROLIA"

(VASELINE).

Absolutely Genuine Paraffinum Molle of the very Purest Form, and we claim that it is superior to Vaseline.

Packed in Tins, 1, 4, 10, 14, 28, 56, and 112 lbs.

"OLEUM DEELINÆ"

(REGISTERED).

Universally adopted by the Medical Profession for

ECZEMA,
OPHTHALMIA, SCURVY, RINGWORM,
ITCH, PILES, SKIN DISEASES,

FOR

EXTERNAL & INTERNAL IRRITATION
OF EVERY KIND.

PACKED IN CASES—

One Doz. 1s. 6d. Bottles; One Doz. 2s. 6d. Bottles;
or half of each.

TESTIMONIALS MAY BE HAD UPON APPLICATION.

"EDIBLE SALVO PETROLIA"

For Public Speakers, Actors, & Singers.
1s. per Tube.

The above are Manufactured Solely by the Proprietors,

THE DEE OIL COMPANY,
LIMITED.

Works—SALTNEY, CHESTER.

OFFICES:

LONDON — 38 LEADENHALL ST., E.C.

Liverpool, Dublin, Manchester, Glasgow, Hull, Cardiff,
Bristol, Belfast, Barrow-in-Furness, Nottingham,
Paris, Hamburg, &c.

KENNEDY COMPANY'S ARNICA TOOTH SOAP

Perfumes the Breath, Whitens the Teeth,
and Strengthens and Preserves the
Gums.

SAMPLES AND PARTICULARS ON APPLICATION.

SOLE PROPRIETORS—

THE KENNEDY COMPANY,
2 FALCON STREET, E.C.

"Cream of Magnolia."

MATCHLESS FOR THE COMPLEXION.

A Marvellous and Unique Preparation for Softening, Toning, and
Beautifying the Skin.

INVALUABLE for removing Spots, Sunburns, Blisters,
and all Imperfections.

IMPARTS A VELVETY SOFTNESS AND BLOOM.

Renders it Beautiful to the Eye, and deliciously soft to the Touch. Can
be used with the most perfect safety to any child or infant.

In Bottles, post free, 2s. 6d., 4s., 7s., and 10s. 6d., or Sample Bottles, post
free, 1s. 3d., direct from the Proprietor,

JOHN STEEDMAN,
47 FULHAM ROAD, LONDON, S.W.

ESTABLISHED 1836.

Ladies once using this Preparation will never be without it.

THE NURSERY, THE SICK ROOM, THE TOILET.



THE ARIEL POWDER PUFF.

(MARY WEDLAKE'S PATENT.)

IS a New Invention by which the Powder is contained in the Puff, and
from which it is distributed in such a manner as to secure an even
dispersion wherever directed. The Ariel Powder Puff never touches
the skin, and, therefore, risk from contagion is impossible.

It may be carried in the pocket, always ready for use.

R. FARBAR, House Surgeon, St. Bartholomew's Hospital, writes:—"It is
simple, ingenious, and effective."

Dr. G. E. YARROW, City of London Lying-in Hospital, writes:—"It possesses
distinct advantages over the old form, amongst the most important of which is, that
by its use powder is delivered on parts which are with difficulty reached by the
ordinary puff."

Price 8s. and 11s. 6d. per dozen.

Of all Wholesale Houses, and of the Patentee direct.

M. WEDLAKE, 8 Berkley Rd., Regent's Park, London.

Trade Mark.



Registered.

THE
ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,
12 PAUL MALL EAST, LONDON, S.W.

SOLE AGENTS FOR DR. WARLWORTH'S CALF VACCINE.

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and
source quoted. Tubes, two-thirds full, 1s. 6d. each; Tubes one-third full and Lan-
cet-charged points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small
Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without
source), in quantities for export, 25 per 100 Tubes. Pin-points uncharged, 1s. per
dozen. Vaccine Ejectors, 1s. 3d. each, including postage. Vaccinations by appoint-
ment. P.O.O.'s (including postage, and crossed London and Westminster Bank)
with orders, payable to

EDWARD DARKE Secretary
Office hours, 10 to 4. Saturdays 10 to 2.

NOT TO KNOW THESE ARGUES ONESELF UNKNOWN

WARRICK

BROTHERS'

18 Old Swan Lane,

LONDON, E.C.

Real Heliotropes



Real Roses



Real Violets

* DELICIOUS + CACHOUS. *

3/- per lb., Splendidly Labelled.

4/- per dozen boxes, Gold Embossed on Calf.

R C TREATT

Dunster House Mincing Lane

LONDON

IMPORTER OF

Musk

Civet

Ambergris

Attar - of - Rose

ESSENTIAL OILS

Wholesale
and
Export
only.

APPLICATION.

ON

QUOTATIONS

AND

PRICE LIST

FACTS SPEAK FOR THEMSELVES!

Results of a voting recently held in the pages of the *British and Colonial Druggist*, as to the most popular makers of the various articles sold by Chemists, reveal the following indisputable facts under the heading of Menthol Cones:—

Votes for—

Hockin, Wilson & Co. 65
Christy & Co. 63
Maw 28
Castle Brand 5

161

Votes for—

Shirley's

A1 Brand 644

So that out of 805 votes, **SHIRLEY'S BRAND** obtained 80 per cent., whereas all other brands put together obtained but 20 per cent., or comparing each brand separately,**SHIRLEY'S** obtained—

Nearly 10 times as many votes as	Hockin, Wilson & Co.'s.
Over 10	Christy & Co.'s.
" 23	Maw's.
" 128	Castle Brand.

THE REASON IS SIMPLE.

Every endeavour has always been made to assist the retailer in selling

SHIRLEY'S A1 BRAND MENTHOL CONES,

By giving away Show Cases, Dummy Cones, Handbills, &c., the latest in this way being "THE LITTLE CRIER."



This Elegant Biscuit-China Figure, an Ornament to any Shop,

GIVEN AWAY

To Purchasers of 25/- worth of

SHIRLEY'S A1 BRAND MENTHOL,

Or two if 40/- Order is Placed.

The following special parcels have been arranged to suit all classes of trade:—

Parcel 1, 25/- 4 doz. 2d., 1 doz. 3d., 2 doz. 3d., 3 doz. 4d., 2 doz. 6d.

Parcel 2, 25/- 4 doz. 6d., 2 doz. 4d., 1 doz. 1s.

Parcel 3, 25/- 3 doz. 3d., 2 doz. 1s., 1 doz. 4d.

Parcel 4, 25/- 1 doz. 9d., 2 doz. 1s., 1 doz. 1s. 6d.

By calculating what each of the parcels would realise when sold, it will be found that they yield an average profit of 50 per cent. to the retailer on his outlay.

Parcel 5, 40/- 4 doz. 2d., 2 doz. 3d., 3 doz. 3d., 5 doz. 4d., 4 doz. 6d.

Parcel 6, 40/- 5 doz. 6d., 3 doz. 4d., 2 doz. 1s.

Parcel 7, 40/- 4 doz. 6d., 4 doz. 4d., 1 doz. 9d., 2 doz. 1s.

Parcel 8, 40/- 4 doz. 1s., 2 doz. 9d., 1 doz. 1s. 6d.

1d., 2d. and 3d. MENTHOL CONES for those who are obliged to sell cheap shapes.

No. 110v. 1d. Vase shape, 3 doz. on a card, 7/6 gross.

No. 114. 2d. Varnished Pedestal shape, 3 doz. on card. 16/ gross.

No. 115. 3d. Varnished Draughtsman, 2 doz. on card. 20/ gross.

A1 COCAINE MENTHOL TOOTHACHE TUBE.

Sells splendidly; 12 on a card, 3/6 dozen.

SHIRLEY'S

20/ CASE OF SMELLING BOTTLES.

Order one of these cases and you will not regret it. The case is lined with maroon velvet, and has a mirror back. The goods can be got at from the counter, as the case opens from the back. You can rely on a good assortment of bottles being sent you.

ARTHUR W. SHIRLEY, 30 PATERNOSTER SQ., LONDON, E.C.,

And 11, 12, and 13 ROSE STREET, NEWGATE STREET.

CHRISTMAS PRESENTS.

HIGHEST AWARD AND MEDAL, 1888.
SPECIAL AWARD & GOLD MEDAL, 1889.

PETAL DUST.

The Great Floral Air Purifier
and Everlasting Perfume.

PETAL DUST

has secured the HIGHEST AWARD wherever exhibited,
and the Sale of nearly One Million packets within the last
few years bears good proof as to its popularity with the
public.

CHEMISTS will find PETAL DUST the best selling line for the Christmas Season
Hundreds of Testimonials have been received.

PRICES.

3d. Size, in Boxes containing 3 dozen	6s. 0d. per box	} Net
6d. " " 1 "	...	...	...	...	3s. 6d. "
1s. " " 1 "	...	...	...	...	7s. 0d. "

Order through your Wholesale House, or, CASH WITH ORDER, direct from SOLE PROPRIETORS—

THE ROSMARINE MANUFACTURING CO., LONDON AND PHILADELPHIA.

LONDON OFFICE—54 STAMFORD STREET, LONDON, S.E.

CITY DEPOT—H. C. QUELCH, 19 LUDGATE HILL, LONDON, E.C.

PUREST

BRAND—
"S. SERAPHIMOFF,"

OTTO

Distiller & Exporter,
KEZANLIK, BULGARIA.

SOLE
CONSIGNEES—

OF

FUERST BROS.

4 COPTHALL BUILDINGS, LONDON, E.C.

ROSE.

Telegrams—"Fuerst London."

Telephone No. 462.

[4]

"Second to none." All buyers desiring absolute purity and guaranteed excellence should write for Samples and Prices.

WHITE AND SOUND TEETH.

JEWSBURY & BROWN'S

ORIENTAL TOOTH PASTE.



This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by

JEWSBURY & BROWN, Chemists, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address cards and directions for enclosure.

MAW'S MENTHOL CONES.

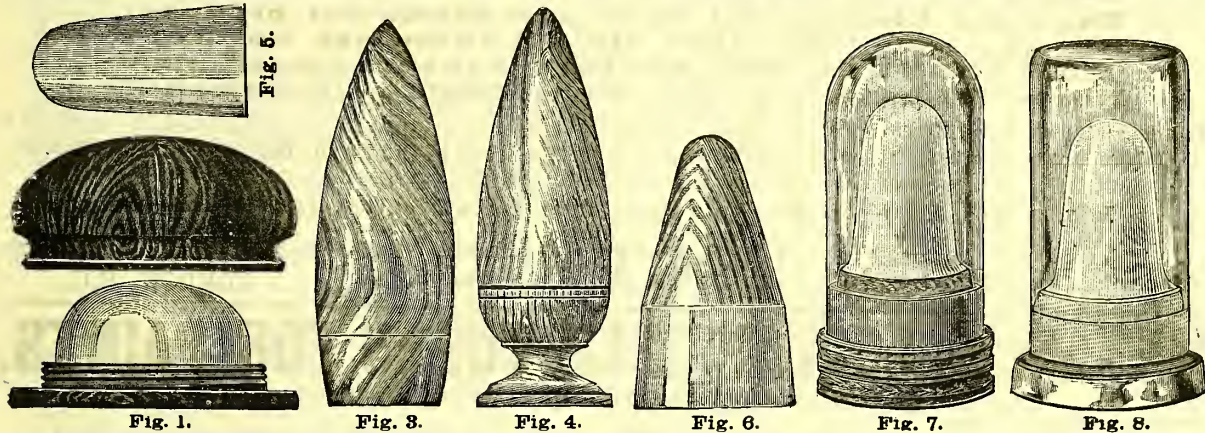


Fig. 1.	In Ebony Cases, flat for the pocket	Per doz.	4/8
Fig. 3 & 4.	In Boxwood Cases, per doz., 2/9, 3/6, and 5/-; in Vegetable Ivory	"	4/8
Fig. 5.	In Boxwood Cases, per doz., 2/3, 3/9, and 5/-; in Vegetable Ivory	"	4/6 and 5/3
Fig. 6.	In White Opaque Glass Jars with Red Celluloid Caps	"	2/3 and 3/-
Fig. 7.	Mounted, in Stoppered Bottles	"	6/-
Fig. 8.	Mounted on Vegetable Ivory, in Glass Bottles, Screw Metal Caps	"	4/3
	On Boxwood Mounts, Glass Covers... ..	"	3/- and 4/-
	On new Glass Mounts, Glass Covers	Per doz.	33, 3/9, 4/6 and 7/6
	On new Earthenware Mounts, Glass Covers	Per doz.	4/6 and 7/6
	On Glass Mounts with Glass Covers	"	4/- and 5/6

S. MAW, SON & THOMPSON, LONDON.

BAILEY'S RUBBER BRUSHES.



5 inches by 3 inches.

Our Bath and Flesh Brushes have been so well received by the trade, and have met with such ready sale, that it is unnecessary for us to say anything in praise of them here. We shall continue to make them of the very best quality of rubber obtainable, and, as we are advertising them largely, we have every confidence that they will continue to sell well.

PRICE 5/each (in neat metal cases and with wood handles), or £2.2s. per dozen.

THE NEW RUBBER SHAMPOO BRUSH

SIZE, 7 inches by 7 inches.

The whole as soft and pliant as a silk handkerchief. Eradicates Dandruff, and thoroughly cleanses the Scalp and Hair of all Impurities, simply by using with pure soap and water. For bathing the Neck and Face, or Children, will be found delightful.

PRICE 3/6 each, or 25/ per dozen.

Price Lists, Air Goods, Water Bottles, Sponge Bags, Elastic Bandages, &c.,
UPON APPLICATION.

DAVID MOSELEY & SONS (14 Aldermanbury Ave., LONDON, E.C.; Ardwick, MANCHESTER;
57 Miller Street, GLASGOW; BRUSSELS and PARIS.

CLEAN HANDS.



Nothing has ever been invented that will so thoroughly cleanse and whiten the hands as our rubber brushes. Used with soap and water they will remove all kinds of stains without injuring the most delicate skin. They are made of the best Para Rubber, and will last for years.

Price, with wooden handles, 1/ and each retail, or 8/ and 17/ per doz.

PATRONISED BY HER MAJESTY.

BARBER'S ORIGINAL CRIMSON MARKING INK,

WHICH IS CHANGED BY HEAT TO A JET BLACK.

Put up for Retail Sale in 6d., 1s., 2s., 2s. 6d., and 5s. Bottles.

Also Barber's Concentrated Liquid COCHINEAL, for Colouring Jellies, Custards, &c.

Put up in 6d. and 1s. Bottles.

Also Barber's Artificial Ivory for Filling Decayed Teeth, 1/- per packet.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO., Club Moor, LIVERPOOL.

Can be obtained through any of the Wholesale Firms in Great Britain, or from FELTON, GRIMWADE & CO. Melbourne; ELLIOT BROS., Sydney and Brisbane; KEMP THORNE, PROSSER & CO., Dunedin and Auckland; FELTON, GRIMWADE & CO., Wellington; or direct from the Manufacturers—G. BARBER & CO., Club Moor, Liverpool, England.



"THE MASHER, THE MAID, AND THE SCENT."

[Continued from last week's CHEMIST AND DRUGGIST.]

So my Pretty Maid to a Chemist next went,
And forthwith demanded a bottle of scent.
Then the Chemist all sorts and kinds did produce,
But she said—"My dear Sir, all these are no use:
'THE SCENT OF THE LILIES' is the perfume I meant,
Nor will I have any other than VOGT & CO.'S Scent."

And she got it too. For the Chemist had seen our Advertisement in last week's CHEMIST AND DRUGGIST, and, having an eye to business, had sent us an order for this and our other New Perfume—"The Scent of the Hayfields." MORAL: "Do likewise."

N.B.—747 Bottles of our Perfumes sold at the Cattle Show. The Public evidently like them.

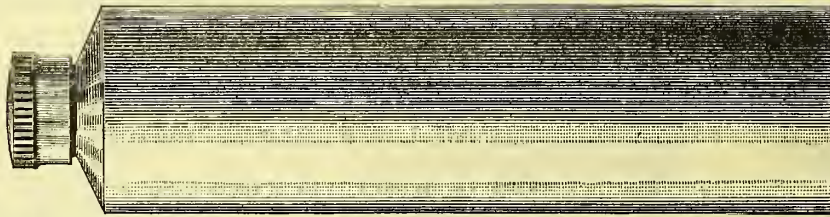
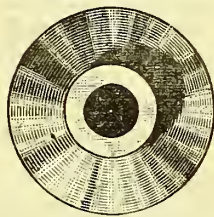
In 1, 2, 4, 8, and 16 oz. Bottles, to Retail at 2s., 3s. 6d., 6s. 6d., 12s., and 2rs. each.

Telegrams: { **G. VOGT & CO.** } 19 Laurence Pountney Lane,
"ALSACE LONDON." { LONDON, E.C.

METALLIC COLLAPSIBLE TUBES FOR PAINTS,

Perfumes, Shaving Creams, Soaps, Oils, and all Fluid or Semi-Fluid Substances.

FOR CREAMS & SOAPS.



H. G. SANDERS & SON, Manufacturers,

Victoria Works, Victoria Gardens, Notting Hill Gate, LONDON, W.

TELEGRAPHIC ADDRESS: "COLLAPSIBLE LONDON."

[3]

ESTABLISHED 1820.



FOR

LADIES
OF
FASHION

CRÈME SIMON À LA GLYCERINE.

MARVELLOUS FOR

Softening & Whitening the Complexion. Most efficacious for the Skin.

J. SIMON, 36 RUE DE PROVENCE, PARIS

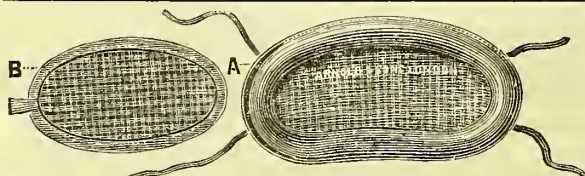
FOR SALE BY DRUGGISTS AND FANCY GOODS STORES.

SUPERIOR
TO

VASELINE

AND

CUCUMBERS



ARNOLD'S Patent SANITARY RESPIRATOR

Vide THE CHEMIST AND DRUGGIST, October 12, 1889:—

"The outer air is inspired through a movable diaphragm of woven Horse-hair, non-absorbent, and covered with silk."

Each supplied with an extra Diaphragm.

Price in Box, Retail, 2s. each; Wholesale, 16s. per dozen

ARNOLD & SONS, Instrument Manufacturers. 35, 36, & 37 West Smithfield. LONDON.

SEABURY'S MUSTARD PLASTERS

ARE THE BEST.

On cloth	100 10 6 3 leaves; 1/2 1 5-yard rolls
	84/ 10/ 6/ 3/ 7/ 10/ 84/ per doz.
	6 in. 6 in. 12 in wide
On paper	100 50 10 leaves; 1 yard 5-yard rolls
	60/ 30/ 7/ 7/ 60/ per doz.
	6 in. 12 in. wide

Seabury's Half-strength Mustard Plasters on Paper, 10 leaves in box, 7/ per dozen boxes.

These Plasters are intended to meet the wants of persons of specially sensitive skins, who cannot endure the activity of full strength.

SUBJECT TO DISCOUNT.

[1]

SEABURY & JOHNSON,

46 JEWIN STREET, LONDON, E.C.

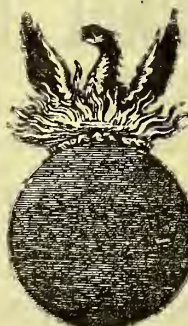
NEW YORK.

MONTREAL.

HAMBURG.

58

COLTHURST & HARDING,



BALL DENOTES

COLOUR OF PAINT. Export Orders receive special and prompt attention

BRISTOL—Manufactories: Phoenix Wharf and Temple Gate. Offices: Temple Gate. Telegrams: "Phoenix Bristol."

LONDON—Manufactory: Alpha Works, Millwall E. City Office: 16 Fish Street Hill, E.C. Telegrams: "Alpha Brand London."

HARD LUSTROUS ENAMEL,
IN ALL THE ART SHADES.

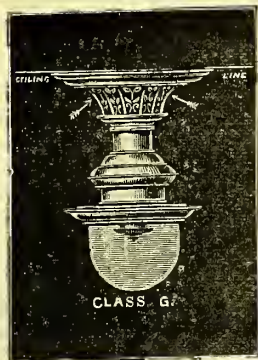
For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

WHITE LEAD, ZINC WHITE,
PAINTS & COLOURS OF ALL KINDS.

MIXED PAINTS READY FOR USE,
In Tins, 1, 2, 4, 7, and 14 lbs. each.

HIGH-CLASS VARNISHES

Of all kinds, for Coachbuilders, Decorators, &c. OIL BOILERS, REFINERS, & MERCHANTS



CHEMISTS' SHOPS, to be attractive and healthy, should be well lighted and ventilated.

The Wenham Gas Lamp has now been perfected for INSIDE and OUTSIDE Shop Lighting, ensuring a pure, brilliant, economic light.

Write for a descriptive Catalogue to

THE WENHAM COMPANY (LIMITED)
Upper Ogle Street, Fitzroy Square, London, W.

AVOID RISK OF CHILLS IN THE BATH BY USING

RANKIN'S CORK BATH MATS.

MAKES THE BEST CARRIAGE MAT. OF ALL CHEMISTS AND DRUGGISTS.
A Real Comfort. Recommended by Medical Men.

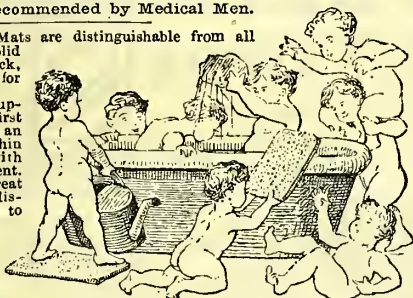
CAUTION.—These Mats are distinguishable from all others in being made of Solid Cork Wood, 1 inch thick, and are unequalled for warmth and comfort.

Valuable show-cards supplied to Retailers with first order; and with all Mats an equal number of fine thin cards of Cork printed with illustrated advertisement. These cards are a great novelty, and their free distribution will be found to assist sales materially.

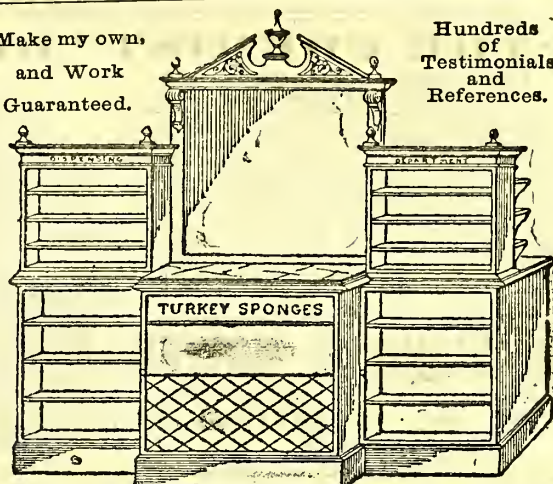
PRICES.
3/-, 5/-, and 7/3 each, free; extra sizes, 10/6, 12/6, and 15/- each, super quality and finish.

WM. RANKIN & SONS, 10 CARLTON PLACE, GLASGOW.

Wholesale Chemists' Agents—S. MAW, SON & THOMPSON.



Make my own,
and Work
Guaranteed.



Hundreds
of
Testimonials
and
References.

The above represents a Plate-glass and Mahogany Dispensing Screen and Counter. The cases on each side of the marble slab over sponge case have silvered glass backs, and are fitted with movable shelves; the cases in front of counter are also fitted with movable shelves. The mahogany used is beautifully figured. At back under counter fitted with Drawers for Corks, Labels, Paper, &c., &c., and the back of screen with three shelves the entire length for Bottles.

6 ft. long, complete, £16; if Screen only, without Counter, £8 10s.

ELKANAH NATALI

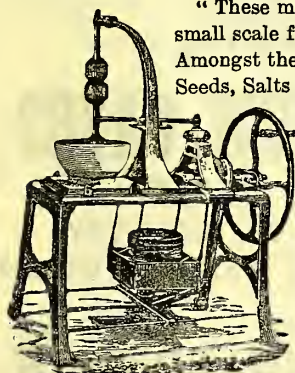
(Established 20 Years),

SHOW CASE MAKER AND SHOP FITTER,
207 OLD STREET (Shoreditch End), LONDON
Workshops—HENSON STREET, E.C.
(ONLY ADDRESSES).

No connection with any other house of the same name.
PLEASE ADDRESS IN FULL.

GOODALL'S PATENT GRINDING & LEVIGATING MACHINES.

"These machines have for many years proved most serviceable on a large and small scale for Grinding, Levigating, and Mixing Powders, Pill Masses, Paints, &c." Amongst the articles which are readily ground by it may be mentioned Ginger, Seeds, Salts of all kinds, Cream of Tartar, Sugar, Cocoa, Pepper, Spice, Jalap, Rhubarb, Gums, Aloes, Barks, &c.; and for mixing or kneading Lozenges, Pill Masses, Glaziers' Putty, Bread, Biscuits, &c.



ILLUSTRATED PRICE LIST, with full particulars, sent free.

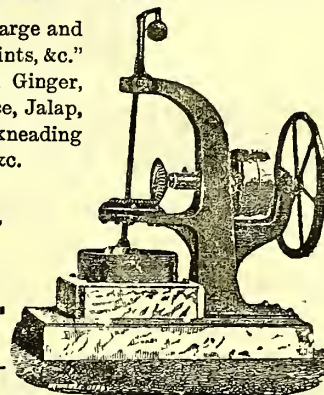
Prices from £8 10s. to £60.

E. F. GOODALL, Duffield, near DERBY.

London Office and Show Rooms:

6 ELDON ST., LONDON, E.C.

Agent—Z. CARTWRIGHT.



BEYER FRERES,

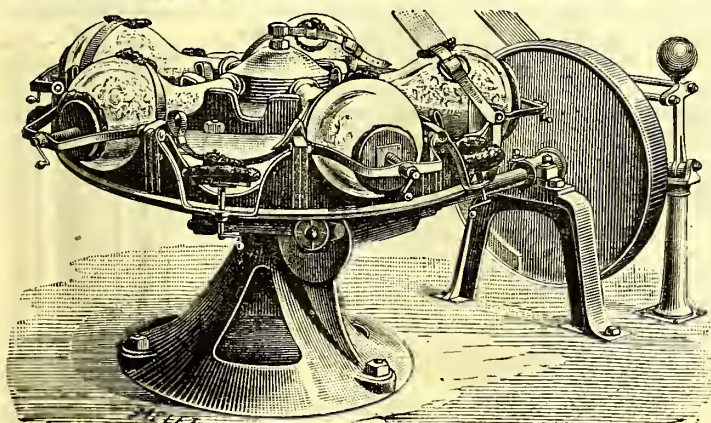
16 & 18 RUE DE LORRAINE,
PARIS.

2 GOLD MEDALS PARIS EXHIBITION, 1889.

NEW AGITATING MACHINE

For macerating and exhausting raw materials in infusion with alcohol, producing 150,000 movements per day in each metal receptacle, with a minimum of force. A considerable economy of time, labor, and capital is obtained in infusing musk, amber, benjamin, civitte, iris, grains, powders, or pharmaceutical products treated with liquids or ether.

These machines are made for 10 or 15 bottles, each, containing about 15 litres, as required.



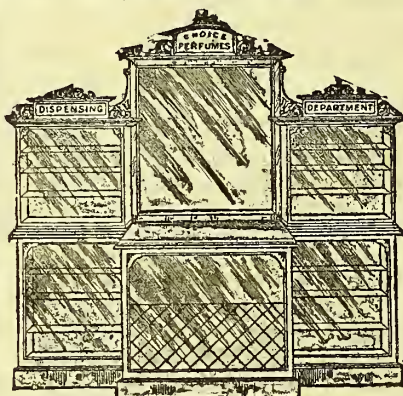
"THE CHEMIST" DISPENSING COUNTER.

6 feet long by 2 feet wide .. £24
If the Dispensing Screen only, £12

This handsome Dispensing Counter is manufactured in Spanish mahogany, and of the best workmanship, so that it will stand any climate. The counter has a solid mahogany top, and plate-glass case front. The centre part fitted to take sponge. A mahogany screen on top, consisting of two plate-glass cases, with shelves inside, and large plate-glass mirror in the centre, and three glass tablets with gold writing in ornamental mahogany carved work. The back of screen fitted with small shelves and a glass poison cupboard. The inside of counter fitted with strong counter drawers, label and cork drawer, open shelves, &c.

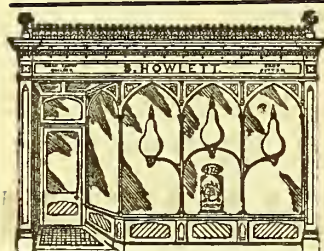
BOWLING & GOVIER

Manufacturers of High-class Shop Fittings,
GUN ST., BRUSHFIELD ST.
BISHOPSGATE, E.C.



NOTICE TO THE TRADE.

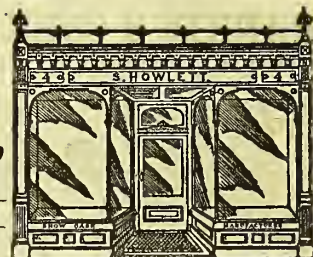
In consequence of inferior Second-hand Goods being sold for our make, we have found it necessary to protect our reputation for best work with a Trade Mark, as above, and unless goods are so stamped we cannot be answerable.



ESTABLISHED 1830.

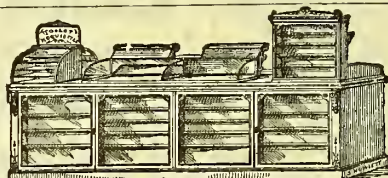
S. HOWLETT, MEDICAL AND GENERAL SHOP FITTER, Shop-Front Builder and Show-Case Maker.

EXPORT ORDERS CAREFULLY PACKED AND SHIPPED.



SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

NUMEROUS REFERENCES may be obtained of Leading Chemists in all parts of the Kingdom.



A LARGE STOCK of New and Second-hand Fittings and Cases to be sold very OHEAP.

CABINET FITTER to the Pharmaceutical Society of Great Britain.

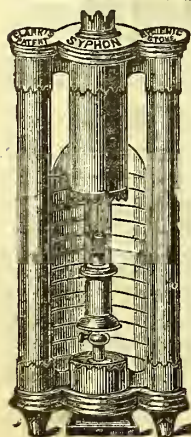
PLANS and ESTIMATES SUPPLIED.

Manufactory and Showrooms—4 Lindley St., Sidney St., Mile End Road, LONDON, E.

GEORGE TREBLE & SON, FOR CHEMISTS' SHOP FITTINGS & SHOW CASES. SHOPS FITTED FROM £50.

DESIGNS AND ESTIMATES SUPPLIED IN TOWN OR COUNTRY.
ESTABLISHED FORTY YEARS. HIGHEST REFERENCES CAN BE GIVEN
THREE PRIZE MEDALS.

Steam Factory: 27 CANAL ROAD, HOXTON, LONDON.



TO CHEMISTS AND DRUGGISTS.

AGENTS WANTED FOR THE SALE OF OLARK'S PATENT

"SYPHON"

(REGISTERED TITLE)

HYGIENIC CONDENSING GAS HEATING STOVES.

NO FLUE REQUIRED. ARE FREE FROM SMELL OR SMOKE.

All injurious vapours are reduced to harmless liquid inside the Stove, and passed out at foot into a tray provided for that purpose.

FOR USE IN HOSPITALS, SICK CHAMBERS, BEDROOMS, HALLS, CONSERVATORIES, CHURCHES, SCHOOLS, ETC.

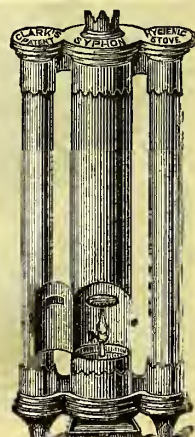
Specially suitable for patients suffering from Bronchial affections, as a moist atmosphere is obtainable when required.

FOR TERMS, PARTICULARS, AND PRICES, APPLY TO

S. CLARK & CO., Patentees & Makers, Syphon Works, Park St., Islington, LONDON, N.

Telegraphic Address:—"SYPHON STOVES LONDON."

Wholesale Agents:—Messrs. MAW, SON & THOMPSON, Aldersgate Street, London, E.C.





PHILADELPHIA, 1876.

PRIZE MEDALS. INTERNATIONAL EXHIBITIONS.



MELBOURNE, 1880.



SYDNEY, 1879.

KILNER BROTHERS

GLASS BOTTLE MANUFACTURERS.

No. 3^A GREAT NORTHERN GOODS STATION, KING'S CROSS, LONDON.



PARIS, 1878.

Telegraphic Address :

"BOTTLES LONDON."



LONDON, 1862.

Telephone

No. 7509.



PARIS, 1875.

EXCELLENT
QUALITY.

EXTENSIVE
VARIETY.

PRICES LOW,



Dispensing.



FIRST ORDER OF MERIT,
GOLD MEDAL,
MELBOURNE, 1888.



Feeding.

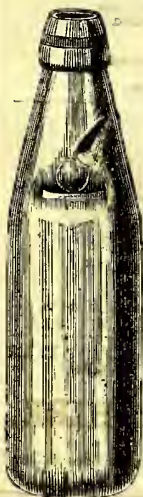
FEEDING, PICKLE,
DRUG, OIL,
SAUCE, VINEGAR
BOTTLES.



Dispensing.

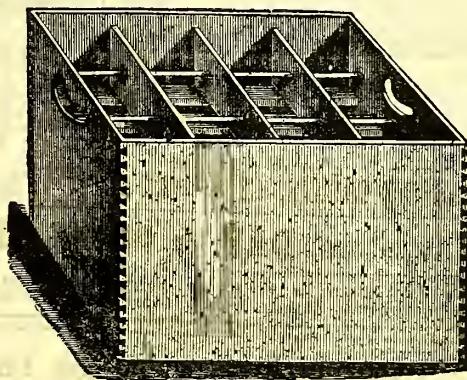
WINE, SPIRIT,
BEER,
CONFECTIONERY
BOTTLES.

QUOTATIONS
AND
SAMPLES SENT
ON
APPLICATION,



Mineral Water
BOTTLES.

VAN BOXES.



CASES.



Mineral Water
BOTTLES.

FOR ALL CANINE AILMENTS. SPRATTS PATENT, LIMITED, DOG MEDICINES.

Pamphlets on Canine Diseases for gratuitous distribution. Show Cards and Handbills Supplied.

Address: **SPRATTS PATENT, LIMITED, LONDON, S.E.**
SPRATTS PATENT (AMERICA) LIMITED, 239 to 245 East 56th Street, NEW YORK, U.S.A.
OR YOUR WHOLESALE HOUSE.

BATTLE'S VERMIN KILLER.

TRADE MARK.



Mice eat it readily, and die on the spot. Has an immense Sale, and wherever introduced never fails to give satisfaction. Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs. Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby. A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet. From Mr. EDWARD STUBBY, Flemington Mills. I duly received by post the Packet of your VERMIN KILLER, and found it represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets. Leeds, November 6th, 1887. I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS. THOMAS S. CROSLAND. Mr. Stead.

Sold in Packets, 8d., 6d., and 1s. each.

SOLE PROPRIETOR.

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a supply.

ESTABLISHED
1840.

DAY & SONS'

AWARDED
40
PRIZE
MEDALS.

WORLD-FAMED HORSE & CATTLE MEDICINES.



FOR Colic or Gripes in Horses and Cattle.
FOR Debility and Chills in all Stock.
FOR Scour in Calves and Lambs.
FOR Hoven or Blown Cattle and Sheep.
FOR Shivering Fits in Horses.
FOR Weakness after Lambing or Calving.

PRICE—10/ PER HALF-DOZEN, OR 19/ PER DOZEN.



FOR Healing all Wounds in all Animals.
FOR Kicks, Stake Wounds, Broken Knees in Horses.
FOR Cracked Heels and Saddle Galls in Horses.
FOR Sore Teats and Swollen Udders in Cows and Ewes.
FOR Dressing and Anointing in Lambing and Calving.
FOR Every Horse-keeper, Farmer, and Shepherd.

PRICE—2/6 PER BOTTLE.



FOR Fevers, Yellows, Indigestion, and Dulness
FOR Red Water, Costiveness, and Mawbound.
FOR Disordered System in Cattle.
FOR Bad Cleansing after Calving.
FOR Preventing Milk Fever and Inflammation.
FOR Purifying and Increasing the Milk.

PRICE—12/ PER DOZEN PACKETS.



FOR Ill Condition, Off Appetite, Disordered System.
FOR Heat-lumps, Itching, and Soury Skin.
FOR Hidebound, Bad Water, and Blood Ailments.
FOR Coughs, Colds, Sore Throats, and Fevers in Horses.
IN CANISTERS. PRICE—3/6, 7/, 14/, AND 21/.

THE "ORIGINAL" UNIVERSAL MEDICINE CHESTS, £2 4s. and £5. FOR ALL DISORDERS OF HORSES, CATTLE CALVES, SHEEP, AND LAMBS.

Only Prepared by the Inventors, **DAY & SONS, CREWE, CHESHIRE.**

May be obtained of Sanger & Sons; Evans, Lescher & Webb; Barclay & Sons; Burgoyne, Burbidges & Co., &c., London; Evans, Sons & Co., Liverpool, &c. Exporters are invited to apply for terms. Liberal Discount offered.

INDEX TO ADVERTISEMENTS, see Pages 21-23.

Steiner's Vermin Paste

For destroying Rats, Cockroaches, &c.
8d., 6d., and 1s. Glass Jars; 2s. 6d. Tins. Warranted to keep for Export.

Steiner's Vermin Killer

FOR DESTROYING MICE. 1d., 3d., 6d., and 1s. Packets.

Steiner's Insect Powder

PRIME DALMATIAN. The most energetic Insecticide. Kills Bugs, Fleas, and all offensive Insects. Quite Harmless to Domestic Animals. 1d., 3d., 6d., and 1s. Tins. Also in 7-lb. Tins and in Kegs of 120 lbs.

STEINER & CO.
ARE SOLE PROPRIETORS AND MANUFACTURERS OF

James's Phosphor Paste

1d., 3d., 6d., and 1s. Glass Jars.
May be obtained through all the Wholesale Houses, or direct from
THE WORKS, HENRY STREET, LIMEHOUSE, LONDON.

ESTABLISHED 1833. HORSES.—LIEUT. JAMES'S BLISTER.



CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, are now and have been Agents 56 years.

AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 157 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burdidges & Co., 16 Coleman Street; Lynch & Co., 171A Alder-gate Street; Southall Brothers and Barclay, Birmingham; R. Heyden & Sons, 93 & 95 City Road, Finsbury; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia St., Glasgow; John Thompson, 53 Hanover Street, Liverpool; Boileau & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry; M. C. Delacre, Pharmacie Anglaise, Bruxelles.

And by all Chemists, in Pots, 1/6, 2/9, 5/9, and 1/.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kemphorne, Prosser & Co.; CALCUTTA: Smith, Stanistreet & Co.

W. H. JAMES, SOLE MANUFACTURER, STANFORD, FARRINGTON, BERKS.
Advertised in "Bell's Life" 54 years. Beware of Spurious Imitations.

INDEX TO ADVERTISEMENTS.

Pages 21—23.



Used on the Royal Farms at Windsor, Osborne, and Sandringham, and by the principal Stockbreeders everywhere for nearly 60 years.



DAY, SON & HEWITT'S HORSE, CATTLE, AND SHEEP MEDICINES.

THE CHEMICAL EXTRACT.

For assuaging pain and inflammation in all wounds, saddle galls, strains, bruises, swellings and relaxed tendons in Horses. For painning after calving and lambing, and for swollen udders and sore feet.

2s. 6d. per Bottle; 1-dozen Box, 7s. 6d.

THE RED DRENCH.

Celebrated for inflammatory disorders, such as fevers, pleurisy, foot-and-mouth complaints, yellowe, surfeit, and red-water. Also for difficult calving and lambing. Admirably adapted for cleansing and checking feverish symptoms in Cows and Ewes after a bad time of parturition.

For Sheep, 3s. 6d.; for Cattle, 13s. per dozen Box.

THE GASEOUS FLUID.

Unmatched for colic or gripes and debility in Horses, for colds, chills, shivering fits, flux and diarrhoea in Cattle, Calves, and Sheep. For Ewes weakly after lambing and blown Cattle and Sheep, its effects are marvellous.

20s. per dozen Box.

THE GASEODYNE.

Used as laudanum in incoercible spasmodic pains and violent bowel complaints. Invaluable for parturition in Mares, Cows, and Ewes.

8s. 6d. per Bottle; 1-dozen Box, 10s. 6d.

THE RED PASTE BALLS and RED POWDERS.

For ill-conditioned Horses and Colts; invaluable after hard hunting or driving. For coughs, colds, staring coat, itching, swollen legs and want of strength. The powder given in the feed will produce fine appetite and tone.

7s. 6d. per dozen; 3-dozen Box, 21s.

THE BLACK PHYSIC BALLS.

These Balls are matchless for thoroughly cleansing the system of all impurities, and for assisting in the expulsion of Worms. Their purgative action soon relieves Costiveness of the Bowels, and checks all Feverish Symptoms arising from gross habit.

Price, 8s. per dozen; Box containing 3 dozen, £3.

THE BRONCHOLINE.

The great and reliable remedy for Hask or Hooso in Cattle, Heifers, Calves, and Sheep. Its gaseous odour destroys the worm or parasite in the windpipe, removes the hard cough, and soothes the lungs and other organs.

2s. 6d. per Bottle; 1-dozen Box, 7s. 6d.

THE "KEY TO FARRIERY."

A small work published by us on the general ailments of stock, their treatment and cure.

Large Edition, in Cloth, 2s. 6d.; Small Edition, 1s.

The Stockbreeder's Medicine Chest.	No. 1 contains a complete assortment of all our preparations for treating diseases of stock generally,	£8 6 0
The Stockbreeder's Medicine Chest.	No. 2 is suitable for ordinary Farm use, and contains a useful selection of the above Medicines	2 18 6
The Horsekeeper's Medicine Chest.	No. 3 is arranged for large Horse Owners, Collieries, &c., and contains 12 specially selected Medicines	5 5 0
The Horsekeeper's Medicine Chest.	No. 4 contains a smaller assortment, but has everything requisite for all ordinary ailments in Horses	2 17 6

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, LONDON, W.

LIBERAL DISCOUNT TO FOREIGN BUYERS.

LIST AND PARTICULARS OF AGENTS ON APPLICATION.

"Pineotas"

THE IMPROVED NATURAL DISINFECTANT.

A Powerful Extract from the Pine. Non-poisonous, most agreeable in smell, quite safe in use. These Goods are got up in the best possible style, and form most attractive and saleable articles.

PINEOTAS DISINFECTING POWDER—A White Powder, £8 per ton. In Bags or Casks, 1 cwt. and upwards, 10s. cwt.; in hand-some large decorated Tins, to Retail at 1s. each, 4s. 6d. per doz.; ditto, ditto, double size, to Retail at 1s. 6d. each, 8s. per doz.; and ½-lb. and 1-lb. Packets.

PINEOTAS DISINFECTING FLUID (Miscible with water).—1s. Bottles, 6s. 6d. per doz., or 3s. 6d. per gallon.

PINEOTAS CRUDE FLUID.—1s. Bottles, 6s. per doz., or 3s. 6d. per gallon.

PINEOTAS DISINFECTING OIL (A Sherry Color).—1s. Bottles, 6s. 6d. per doz., or 3s. 6d. per gallon. [1]

Also **SOAPS** (Toilet and Household). **Makers of Carbolic Powder, Acid, Crystals, Fluid, &c.**
HAMILTON & CO., High Street, Wandsworth, LONDON, S.W.

S.V.R.

PURE GRAIN SPIRIT 56 O.P., B.P., 18/5, used by the principal Wholesale Druggists

Do.

Do. **DOUBLE DISTILLED 18/9**

Cash with Order.

Reductions for Quantities.

SAMPLES FREE.

STEPHEN SMITH & CO., BOW, LONDON, E.

S.V.R.

SPECIALITY FOR PERFUMERY.

This pure grain spirit, which has been thrice rectified and filtered through charcoal, is being largely used in making high-class Perfumes.

Price, 19/-, 56 o.p.; 19/6, 60 o.p. Cash with order.

Reductions for Quantities.

STEPHEN SMITH & CO., BOW, LONDON, E.

ANILINE DYES

TO SUIT ALL TRADES.

**BEST SPIRIT BLACK
IN THE MARKET.**

Mahogany Stain
Ebony Stain
Oak Stain
Walnut
Stain

PRONK, DAVIS & CO.
3 TRINITY PLACE, TOWER HILL, LONDON, E.C.

COLOURS.

CHEMICALS.

INDIGO PASTE.

CUDBEAR.

DYEWOOD EXTRACTS.

BRONZE POWDERS AND METAL LEAF.

**JAMES
BURROUGH,**

S.V.R.

CALE ST., CHELSEA, S.W.

and Methylated Spirit

AT LOWEST PRICES.

WRITE FOR QUOTATIONS.

PURE SPIRITS OF WINE.

(STEAM STILL)
ONLY.

60 o.p., 18/9 per gall.; 56 o.p., 18/3 per gall.

(SPECIAL QUOTATIONS
TO LARGE CONSUMERS)

CASH WITH ORDER.

GEORGE PHILLIPS & CO., ST. ANDREW'S DISTILLERY, CLERKENWELL ROAD, LONDON, E.C.

ANGLO-AMERICAN OIL COMPANY, LIM.

LONDON.

HULL.

GREAT YARMOUTH.

LIVERPOOL.

NEWCASTLE.

LYNN.

BRISTOL.

SOUTH SHIELDS.

STOCKTON.

HEAD OFFICES—16 ST. HELENS PLACE, BISHOPSGATE ST., LONDON, E.C.

American Refined Petroleum.

The long established superiority of "**Tea Rose**," "**Royal Daylight**," "**White Rose**," and "**Westminster**" American Petroleum Oils, manufactured by the Standard Oil Company of the United States, is well known to the Trade and to Consumers, and no Oils are so widely and justly celebrated. Their superior burning qualities, freedom from odour and from any tendency to smoke, and their general excellence, have placed them above comparison with any and all other brands.

In order to meet the largely increasing demand for these oils, and the better to supply the Trade generally, we have arranged to import them from the United States in bulk as well as in barrels. We shall fill the Oil which we import in bulk into barrels at our own wharves, and as our cooperage facilities are modelled upon the best American methods, buyers will receive the Oil in tight and clean packages.

Our Tank Steamers, "**Manhattan**" and "**Bayonne**," in their construction, arrangements, power and size, are in advance of any tank steamers afloat, and each has a carrying capacity of 4,000 tons, equivalent to 28,000 barrels of Oil by each steamer.

We shall keep large stocks of these Oils constantly on hand at all our Importing Centres and Depôts, and in this manner be able to supply the Trade promptly. Being the representatives in the United Kingdom of the Standard Oil Company, of America, we are in the best possible position for supplying the trade on the most favourable terms.

To cover the special requirements of London buyers, we have completed the construction of a large Storage Wharf at Purfleet, which will be worked in connection with our Depôts at—

AILS A STREET, BOW CREEK, E.

CANAL WHARF, CHALK FARM ROAD, N.W.

ALBANY WHARF, ALBANY ROAD, CAMBERWELL, S.E.

HORN & SON.
OFFICES FOR BRITISH AND FOREIGN
PATENTS AND TRADE MARKS,
SOMERSET CHAMBERS, 151 STRAND, LONDON
(NEXT TO SOMERSET HOUSE).
Guide to New Patent Law and Registration gratis.

J. BEACH & SONS,
WILLOW WALK, BERMONDSEY, LONDON, S.E.
MANUFACTURERS OF
PLASTER SKINS and
WHITE SPLIT SKINS for Capping,
WHOLESALE AND FOR EXPORTATION.

ANOTHER GREAT ADVANCE IN DERMATOLOGY.
ANTECZEMA,
A Wonderful Remedy for Inflamed and Irritable Skin Diseases. A few Applications will Cure the most Inveterate Cases of Eczema and Psoriasis.
In Bottles Price 2/9.
Wholesale of F. NEWBURY & SONS, or direct from the Sole Agent,
R. C. LAYNG, Chemist, 93 Finsbury Pavement, London, E.C.

S.V.R. In 40-gallon returnable iron casks, pure tinned, with screw bungs, interchangeable brass taps and spanners for opening. Farina, Dextrin, Glucose, Alcohol absolut., Fusel Oil, Pear Oil, Lime-Soda-Lead-Acetates, Verdigris, Acetic Acid, Wood Naphtha, Charcoal, Ammonia liquid 880-900, anhydrous, Sodium Sulphide Nitrite 96/98 %, Bromides, Iodides, Chloralhydrate, Boracic Acid, Sulphate of Copper, Permanganate of Potash, Ol. Caryophyll., Menth. Pip., Pini, Juniperi.
HUGO LORENZ, 7, 8 Idol Lane, LONDON, E.C.

FOUND DEAD
BY SANFORD'S RAT POISON.
"I have found 145 rats killed in my farm buildings by it."—C. Wilson Offerd.
"It is the most certain remedy I have ever tried. Little pellets about the size of a pea are put in the rat holes or in their runs. I destroyed over 200 rats from one dressing with it."—C. Cook, Orange Farm, Ellesmere, Salop. It is, without doubt, the best ever introduced. Price 6d., 1s., 2s., and 3s., of Chemists.
SANFORD'S MICE POISON for Houses, Buildings, Corn Stacks, &c. Cannot be excelled. Has given entire satisfaction for the past 20 years. In packets 3d., 6d., 1s., and 2s. each, with directions for use, of SANFORD & SON, Sandy, Beds. Liberal terms to Chemists. Wholesale of Barclay & Son, Sanger & Son, Newbery & Sons, Edwards, and others, London (England).

HAND-PICKED GUM ARABIC.
Wholesale and Export Druggists before buying elsewhere should apply to
FREDK. FINK & CO.
10 & 11 MINCING LANE, LONDON, E.C.

For **ASTHMA, CONSUMPTION, COUGHS, COLDS, BRONCHITIS, THROAT AFFECTIONS, SHORTNESS OF BREATH, and all DISORDERS of the CHEST**



Give immediate relief.
Prepared only by **DA SILVA & CO.**, 26 Bride Lane, Fleet Street LONDON.
Sold by all Druggists at 1/1, 2/9, 4/6, and 11/ per box.

PERFUMES
TRIPLE. EXTRACTS. CONCENTRATED.
8s. 6d. per Pint; Three Pints, 24s. 6d.
JOHNSON & CO., Wormald Row, LEEDS.

The Only Award, Edinburgh Exhibition, 1886.
FLEXIBLE Send for Samples and Price List.
GELATINE Price List.
CAPSULES IN BULK.
JAS. ROBERTSON & CO., 35 George St., EDINBURGH.

MOUILLA LIQUID SOAP
The invention of Dr. DUNCAN, St. Petersburg.
Beautifully Transparent Golden Colour. Delicately Perfumed. As prescribed by most eminent Skin Physicians.—See Testimonials.
In handsome bottles with sprinkler tops. Retail. 6d. and 1/6 per bottle. Wholesale terms on application to
The Mouilla Liquid Soap Co., Ltd., 6 Adam St., Strand, W.C.

EMP. ADHÆSIVUM OPT.
16 INCHES WIDE.
On Glazed Calico, 2/9; on Shirting, 4/3 per doz. net cash.
JOHN QUILLIAM & CO., Plaster Works, Manchester.
Cowburn Street, [3]

FLETCHER'S CONCENTRATED LIQUID SHEEP DIP.
Strongest, Cheapest, and Best for all seasons. Acknowledged to be superior to all others.
FLETCHER'S PINO-PHENOL DISINFECTANT FLUID.
As used by Corporations, Local Boards, Hospitals, &c.
LIBERAL TERMS. AGENTS WANTED.
40-gallon casks offered to Chemists and Druggists for retailing at special rates. Write for particulars and samples.
FLETCHER BROS. & CO., Manufacturing Chemists, GRIMSBY.

THE ALOFAS REMEDIES
TINCTURES, PILLS, OINTMENTS, EMBROCATION, ETC.
LIBERAL TERMS TO CHEMISTS. Write for Pamphlet and Circular sent post free.
THE ALOFAS COMPANY, Central Depot, 20 New Oxford Street, LONDON, W.C.

TO LET.

ORANGE WINE
(VIN. AURANT., P.B.)
Specially brewed for Quinine Wine, does not deposit. Is well adapted for Export, as it will keep good in any climate. In casks, 13, 27, 56, 112, 140 gallons; small casks 3s. 9d. per gall., carriage allowed. In wine bottles (not less than 3 doz.), at 9s. per doz., including bottles. Cases extra and returnable.
Sample six stamps. Special quotations to large buyers.
GEO. DURRANT & CO., Hertford.

Critchley's Starch Gloss
Makes starched Linens like new. Does not stick to spider-like materials. Once tried always wanted. Used in the Royal Laundries. Sold everywhere, in packets, 1d., 3d., 6d., and 1s. each. Write for quotations.
Prepared only by **T. CRITCHLEY,** BLACKBURN, and 1 & 2 Australian Avenue, LONDON, E.C.

E. BRAMWELL & SON, ST. HELENS, LANCASHIRE.**EPSOM SALTS (PURE).
CREAM CAUSTIC SODA.
SULPHITE OF SODA
(PHOTOGRAPHIC AND COMMERCIAL).
GLAUBER SALTS.****Dunn's** (Healthful, Useful.)Certificate of
Analysis on each tin.**Fruit-Salt**Manufactured by
W. G. DUNN & CO.
21 Mincing Lane, E.C.
Works—Croydon, Surrey.**Baking Powder****"THE COOK'S BEST FRIEND."**

Price List and Sample on application.

PURE WHITE BEESWAXGuaranteed pure, of the best quality, in blocks, cakes, or other forms.
Candles, and all other articles manufactured of Beeswax,
at the lowest possible prices.

QUOTATIONS FREE ON BOARD HAMBURG AND OTHER PORT

Lüneburger Wachsbleiche Wax Bleaching Works,
LUNEBURG (GERMANY).

THE MANCHESTER MAKERS OF

Established
1840.**METH. SPIRIT**

AND FINISH.

J. & D. MACNAIR & CO.,
19 Robert St., and Bridgeton,
MANCHESTER, and GLASGOW.

Send for prices and samples.

IMPORTERS OF

SHELLAC, GUMS, ETC.**AUSTIN & CO.**

Patentees and Manufacturers of FANCY CARD

ROUND, OVAL, AND SQUARE SHAPED BOXES

FOR POSTAL AND GENERAL PURPOSES.

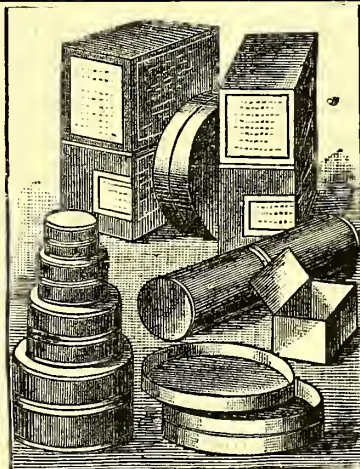
ALSO PATENT BARREL PACKAGES WITH METAL ENDS, FOR DRY GOODS

AND

Makers of best class of Violet Powder Boxes, and high-class goods of
every description for Perfumery, &c.**8 GREVILLE ST., HATTON GARDEN, LONDON, E.C.**

STEAM WORKS, 2 PRINTER'S BUILDINGS.

[2]

**NEW PATENT
AIR-TIGHT CHEMIST JAR.**A slight turn of the knob presses the indiarubber Band against the
glass, and renders the vessel absolutely air-tight. The Stopper is
made of pure Nickel, of handsome shape.

INVALUABLE FOR SHOW BOTTLES, CHEMISTS, CONFECTIONERS, &c.

Samples and Prices of all Chemists' Sundriesmen.

Section of the Nickel
Stopper when closed.**C. MELIN,**
37 CRUTCHED FRIARS, MARK LANE, E.C.**DOULTON & CO., LAMBETH, LONDON, S.E.**

MANUFACTURERS OF EVERY DESCRIPTION OF

WATER FILTERS.

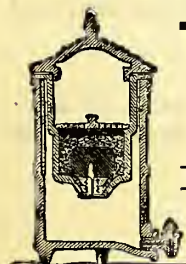
NEW PATENT

Manganous Carbon FILTERS.
Boudoir and Table FILTERS.
Pocket and Syphon FILTERS.House Supply or Cistern FILTERS.
Patent Granular Charcoal FILTERS.
Refrigerator FILTERS.**MAIN SERVICE FILTERS**

FOR INTERMITTENT OR CONSTANT SUPPLY.

See Reports, Analyses, &c. Detailed Lists on application.

To be obtained of all Dealers.

**DOULTON & CO., LAMBETH, LONDON, S.E.**

DEPOTS:—100 Soho Street, LIVERPOOL; Granville Wharf, BIRMINGHAM; and 6 Rue de Paradis, PARIS.

A DI-ACID SOAP MOLECULE.

Nowhere, perhaps, in commerce is there greater activity than in the field of Soaps, but hitherto the energy has been more largely displayed in advertising than in manufacture. The main thing required has been something which would remove dirt, and not cost very much. A curious point in connection with this is that the demand for first-class toilet soaps has not been greater. We believe we are the first to make a special move and a new departure in the manufacture and introduction of soap. We have designed to produce the best possible soap, and to improve it by a special process, wherein every atom of alkali employed is made to combine with two atoms of fatty acid, thus producing a Di-acid Soap Molecule, and the Soap permeated with extra cream besides. It will be seen at a glance that "Vinolia" Superfatted Soap has little in common with the so-called "superfatty" imitations and with the ordinary toilet soaps which abound on all sides. We give a scientific reason for the introduction of this Soap, and we submit more evidence than could logically be required to substantiate our claims in every particular. The Soap is manufactured from the very purest materials it is possible to obtain. It is absolutely devoid of free alkalies; the alkalies being, as it were, locked up with an extra amount of fatty matter, partially in chemical combination. And what is the result? The result is that for those with delicate or diseased skins ablutions with "Vinolia" Soap may be performed without injury to the tissues. If is, of course, needless to refer to the causticising action of soda and potash upon the horny layers of the skin, as well as their softening action, which swells the epithelium of the skin and renders the underlying tissues more likely to be congested. But there is something more: though "Vinolia" Soap is sold retail at 8d. and 10d. a cake, yet, as it contains only 5 per cent. of water, as compared with the ordinary soaps, which contain 40 per cent., it is not expensive. It wears away very slowly and lasts a long time.

We do not mean to say that in those cases where water and soap are ordinarily contra-indicated "Vinolia" Soap is to be used needlessly and without stint. This would be unphilosophical. But we do claim that in all cases where soap is required, "Vinolia" Soap, if resorted to, may be employed with safety, confidence, and satisfaction. It is pre-eminently a Doctor's Soap. It is introduced on scientific lines. The fact that it contains extra cream instead of free alkalies is a grand point *to the good*. To prescribe it is to employ a product uniformly pleasant, agreeable, bland, and cleansing, and which always gives pleasurable results that redound to the credit and good reputation of the one who recommends it. Scientific analysis bears out what we state, and the verdict of physicians and patients alike does the same. It is the Soap of Soaps; the truly scientific Soap of the age; and those who have regard for the hygiene of the skin and hair will surely prescribe it at all times.

Prices.—"VINOLIA," 1s. 9d. and 6s. per Box; "VINOLIA" POWDER, 1s. 9d., 3s. 6d., and 6s. per Box; "VINOLIA" SOAP (Toilet), 2s. 6d. per Box of 3 Tablets; "VINOLIA" SOAP (Medical), 2s. per Box of 3 Tablets. Can be obtained of all respectable Chemists.

BLONDEAU et CIE.,

RYLAND ROAD, KENTISH TOWN, LONDON, N.W.

SPECIAL TERMS FOR CHEST PROTECTORS

LYNCH & CO.

Respectfully invite the attention of Chemists to the subjoined Terms for their CHEST PROTECTORS, which are made of the very best quality materials as hitherto.

THEY DO NOT SUPPLY SECOND QUALITY. ONLY THE BEST!

Catalogue number.

324 CHAMOIS AND FLANNEL.

	No. 1	2	3	4	5	6
Gents'	per dozen 10/6	12/6	14/6	17/	23/	—
Ladies'	7/6	9/6	11/6	14/	20/	—
Children's	"	"	6/	"	"	"

325 FELT, SCARLET, OR WHITE.

	No. 1	2	3	4	5	6
Gents'	10/	11/6	13/6	16/	21/	27/
Ladies'	7/	9/	11/	13/6	19/	22/
Children's	"	"	5/	"	"	"

Sizes of above—No. 1, 9 × 10 in.; No. 2, 9½ × 11 in.; No. 3, 10½ × 12 in.; No. 4, 12 × 14 in.; No. 5, 13 × 15 in.
No. 6, 14 × 16 in.

	No. 1	2	3	4	5	6
326 "DREADNOUGHT," felt, covering chest and back	16/6	22/	27/	33/	44/	50/
Children's	"	"	12/6	"	"	"

326A "DREADNOUGHT," chamois and flannel, per doz., No. 1, 18/; No. 2, 24/; No. 3, 30/; No. 4, 36/; No. 5, 48/6; No. 6, 55/.

326B "WAISTCOAT PATTERN," chamois and flannel, per doz., No. 1, 23/; No. 2, 31/6; No. 3, 40/; No. 4, 49/6; No. 5, 61/; No. 6, 71/.

326C "WAISTCOAT PATTERN," felt, scarlet and white, per doz., No. 1, 20/; No. 2, 28/6; No. 3, 36/; No. 4, 44/; No. 5, 54/6; No. 6, 67/.

326D "CUIRASS," chamois and flannel, per doz., No. 1, 26/6; No. 2, 33/; No. 3, 39/6; No. 4, 47/6; No. 5, 59/6; No. 6, 72/.

327 "CUIRASS," felt, reaching from neck to hips, front and back, and fastening with laces and eyelets, five sizes, per doz., No. 1, 24/; No. 2, 30/; No. 3, 36/; No. 4, 43/; No. 5, 54/; No. 6, 66/.

(Sizes of "Cuirass"—No. 1, 11½ × 9½ in.; No. 2, 13 × 11 in.; No. 3, 16 × 11½ in.; No. 4, 17 × 13 in.; No. 5, 18 × 14 in.; No. 6, 18 × 17¼ in.)

327A CUIRASS JACKETS, with half sleeves, buttoning down front, made of perforated chamois leather and porous scarlet flannel, in four sizes, each, 32 × 18 in., 6/6; 34 × 18½ in., 7/6; 37 × 20½ in., 8/6; 39 × 21 in., 9/6.

(Larger or smaller sizes made to order.)

CHEST PROTECTORS MADE OF PINE FELT.

Specially Recommended for Rheumatism.

	No. 1	2	3	4	5
SINGLE— Ladies'	per dozen 7/6	9/6	11/6	14/	20/
DOUBLE, Covering— Chest and back	16/6	22/	27/	33/	44/

Ordinary Quantity	...	10%	Monthly Account.
By £2 Worth	...	15%	"
By £10 Worth	...	20%	"
By £50 Worth	...	25%	"

Aldersgate Street, London, E.C.

Apollinaris

"THE QUEEN OF TABLE WATERS."

The FILLING at the APOLLINARIS SPRING (Rhenish Prussia) amounted to

11,894,000	BOTTLES	IN	1887,
12,720,000	AND	1888,	
15,822,000	AND	1889.	

"The annual consumption of this favourite beverage affords a striking proof of the widespread demand which exists for table water of absolute purity, and it is satisfactory to find that, wherever one travels, in either hemisphere, it is to be met with; it is ubiquitous, and should be known as the cosmopolitan table water. "Quod ab omnibus quod ubique."—*British Medical Journal*.

Cadbury's Cocoa IS SOLUBLE
and ABSOLUTELY PURE. ABSOLUTELY PURE.

A NEW TREATMENT OF GONORRHOEA

It is generally acknowledged that Gonorrhœa being a local infective disease, produced by micro-organisms, the best treatment is by antiseptics and parasitocides.

THE MOST EFFECTIVE METHOD
OF APPLICATION



IS BY OINTMENT TO THE
URETHRA.

In the *Lancet*, September 1st, 1888, Mr. CHARLES J. SMITH, M.R.C.S., L.S.A., strongly recommends this mode of treatment, for which he has devised an instrument upon the plan of "Allingham's Rectal Ointment Introducer." He says of it: "I am now able to treat my cases with marked success, and, indeed, the average duration of the attacks is so short as to appear open to question—an average of five days—but in even this I feel convinced that the best point is not reached."

We have, we think, improved upon Mr. Smith's instrument; replacing the screw ointment-exPELLER by a simple collapsible tube, ready filled with antiseptic ointment. This, when emptied, can be replaced by a fresh one at a small cost. The collapsible tube makes the application at once more cleanly, effectual, and economical.

Accompanying the Tube are three sizes of Catheters, or Perforated Stems, graduated so that the proper size may be used for each patient. Mr. Smith particularly enforces this point:—"The Urethra must be stretched by as large a stem as can be introduced: the object of this is that the whole surface may be as tense as possible, and the ointment spread fairly and well over every portion."

Since their introduction we have been asked on several occasions to fill tubes with Thallin ointment (4 per cent.), and now keep such ready filled.

THE ABOVE OINTMENTS ARE ALSO SUPPLIED WITH THE ADDITION OF 1 GRAIN COCAINE PER DRACHM.
FULL DIRECTIONS ARE SENT WITH EACH GONORRHOEA TUBE.

PRICES.

Gonorrhœa Tube (filled either with Antiseptic or with Thallin Ointment)	5s.	each	} 10 per cent. discount.
and 3 stems	6s.	"	
Gonorrhœa Tube, filled with either Ointment c. Cocaine	1s. 6d.	"	
Spare Tubes filled with either Ointment	2s. 6d.	"	

R. Sumner & Co.
Wholesale Druggists, LIVERPOOL.